ORNITH
QL
692
E8
F51

TRANS. LONDON ZOOLOGICAL SOCIETY. VOL 7

BIRDS OF N.E. ABYSSINIA AND THE BOGOS COUNTRY

OTTO FINSCH- 1870

1869 WM. JESSE

SHOUT
SHARE
IT

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

http://www.archive.org/details/cu31924022570257

ORNITH
QL
692
E8
F51

VI. *On a collection of Birds from North-Eastern Abyssinia and the Bogos Country. By* Otto Finsch, *Ph.D., C.M.Z.S. With notes by the collector,* William Jesse, *C.M.Z.S., Zoologist to the Abyssinian Expedition.*

Read June 10th, 1869.

[Plates XXIII. to XXVII.]

Having for a long time past directed my attention to the study of the avifauna of Africa, I was much pleased to have an opportunity of examining the fine collection of birds brought home by Mr. Jesse, the indefatigable zoologist attached to the late Abyssinian expedition. This collection was formed on the Abyssinian coast-region at Zoulla and Massowah, in north-eastern Abyssinia, and in the Bogos country, all of which parts of Africa had been already tolerably well explored.

With the successful endeavours of Drs. Ehrenberg and Hemprich, the latter of whom lies buried on the island of Tan-el-had, opposite Massowah, began our acquaintance with the avifauna of the Abyssinian coast-lands. Their extensive work 'Symbolæ physicæ' is, from its unwieldy size, and also from the fact of its being without systematic arrangement of any kind, too seldom referred to, and many of the valuable discoveries therein contained have not received the attention they deserve at the hands of scientific men. Dr. Rüppell, the reexplorer of Abyssinia after the celebrated Bruce, obtained many novelties, and published the results of his explorations in handy and convenient volumes. The extensive collections made by Major Harris have only become the property of science in a limited degree, not having been published in a connected form. Amongst those who have enriched our knowledge of the avifauna of Abyssinia I must mention Salt, Théophile Lefebvre, Ferret, and Galinier, travellers whose names will be for ever engraved in the annals of science; nor must I forget to mention the collection formed during a voyage in the Red Sea by Mr. James Daubeny, and recorded by Dr. Sclater in Sir William Jardine's 'Contributions to Ornithology' for 1852 (p. 123).

During the last ten years, however, our knowledge of the ornithology of North-eastern Africa has been most satisfactorily extended by the explorations of Hofrath v. Heuglin and Dr. A. Brehm in the Bogos country. The first-mentioned naturalist, undoubtedly our first authority on Abyssinian zoology, made a long residence in the Bogos country when attached to the German expedition in search of the much lamented Dr. Eduard Vogel, having been elected by the German nation to the command of this once much talked-of, but now almost forgotten, expedition. From the end of July to

the end of October he successfully explored the Bogos country; and many new birds were discovered, a few of which, however, have since been referred to previously described species. Dr. A. Brehm, who was attached to the hunting expedition of the Duke Ernst II. of Saxe-Coburg-Gotha, during his short visit of two months, made many valuable observations on the habits of the mammals and birds, which were published in a popular work bearing the ill-chosen title of 'Results of a Voyage to Abyssinia'[1]—ill-chosen, because the author never entered Abyssinia proper, having only reached the coast-land of Samchara and the plateau of Mensa, in the Bogos country, about 4000 feet above the level of the sea.

After such important explorations by so many celebrated travellers, it might be supposed that the researches of Mr. Jesse had not been productive of any great results. His fine and surprisingly rich collection, containing about 735 skins, proves the contrary. Although there are only two new, or, I should rather, say hitherto overlooked species in the collection, namely, a Lark (*Alæmon jessei*) and a Shrike (*Lanius fallax*), we were astonished at the fine series of specimens, all of them bearing a label on which was accurately marked the locality, date, and sex, the latter point being always determined by anatomical dissection. These series of specimens have enabled us to become better acquainted with many species than was before possible, by exhibiting to us the individual aberrations and variations of the birds themselves, which knowledge is in many respects more valuable than the discovery of new species. Our knowledge of the geographical distribution of birds has also been increased by adding species to the avifauna of North-eastern Africa which were either little known (such as *Cossypha gutturalis* and *Charadrius pecuarius*) or entirely unknown (as *Cotyle fuligula*, *Nectarinia jardinei*, *Sterna macroptera*, *Hypolais olivetorum*, and *H. elaica*) to be inhabitants of that part of Africa. The occurrence of many species new to Abyssinia and the Bogos country is also of great interest. For Abyssinia I may mention *Aquila imperialis* (observed on the Red Sea for the first time near Zoulla), *Bubo ascalaphus*, *Otus brachyotus* (shores of the Red Sea), *Himantopus melanopterus*; for the Bogos country, *Halcyon senegalensis*, *Irrisor aterrimus*, *Nectarinia pulchella*, *Thamnobia albifrons*, *Zosterops abyssinica*, *Turdus pelios*, *Crateropus limbatus*, *Cr. leucocephalus*, *Platystira senegalensis*, *Lanius nubicus*, *Colius macrourus*, *Pogonorhynchus undatus*, *Megalæma pusilla*, *Oxylophus afer*, *Indicator sparmanni*, and *Cursorius chalcopterus*.

The total number of species collected by Mr. Jesse is 219, being more than a quarter of all the birds known to inhabit north-eastern Africa, supposing the total number to be somewhere about 800. Rüppell enumerates only 532; Heuglin ten years afterwards 754, and in his fauna of the Red Sea 325 species. Dr. Brehm observed during his short visit 172 species. The results of Mr. Jesse's expedition are therefore not less

[1] Ergebnisse einer Reise nach Habesch im Gefolge Seiner Hoheit des regierenden Herzogs von Sachsen-Coburg-Gotha Ernst II., von Dr. A. E. Brehm (Hamburg, 1863).

than those obtained by any of his predecessors, especially when the short period of his stay is taken into consideration; and the present collection of birds will always remain a proof of the diligence and zeal of this indefatigable collector.

I have given critical remarks, to the best of my power, on all interesting or disputed points connected with the determination of the species in the following list; while Mr. Jesse has furnished some field-notes as to habits and the colour of the eyes, legs, &c., which, as far as I can judge myself, seem to have been recorded with most commendable accuracy.

Fam. VULTURIDÆ[1].

1. Vultur fulvus (Gml.).

Gyps fulvus, Rüpp. Syst. Uebers. p. 9. no. 4 *a*; Heugl. Syst. Uebers. no. 4 *b*; *id.* Faun. des Rothen Meeres, no. 4 *c*.

Vultur fulvus, Finsch & Hartl. Vögel Ostafr. p. 31. no. 1 *d*.

a. Senafé. April 1868.

The plumage of this specimen is strongly tinged with ochre-brown, like the so-called *Vultur fulvus orientalis* of Schlegel. Bill greyish horn-colour, along the culmen yellowish.

	Long. al.	Caud.	Culm.	Rostr. a rict.	Tars.	Dig. interm.
Measurements . .	1′ 11½″	10″	23‴	2″ 10″	4″	3″ 11‴

The length of the bill is taken from the front to the apex. The measurements of the toes are exclusive of the claw. All dimensions are given in old French feet and inches, the inches being divided into twelve lines.

[Common in the highlands.—*W. J.*]

[1] The full titles of the works referred to are:—

a. Systematische Uebersicht der Vögel Nord-Ost-Afrika's, von Dr. Eduard Rüppell, Frankfurt a. M. 1845 (mit 50 Abbildungen).

b. Systematische Uebersicht der Vögel Nord-Ost-Afrika's, mit Einschluss der Arabischen Küste, des Rothen Meeres und der Nil-Quellen-Länder, südwärts bis zum iv. Grade nördl. Breite, von Dr. Th. von Heuglin (aus dem Februarhefte des Jahrganges 1856 der Sitzungsberichte der mathem.-naturw. Classe der Kaiserl. Akademie der Wissenschaften (Wien, Band xix. pp. 255–324) besonders abgedruckt.

c. Th. v. Heuglin's Forschungen über die Fauna des Rothen Meeres und der Somali-Küste. Ein systematisches Verzeichniss der Säugethiere und Vögel (Mittheilungen aus Justus Perthe's geographischer Anstalt über wichtige neue Forschungen auf dem Gesammtgebiete der Geographie von Dr. A. Petermann, 1861, pp. 11–32).

d. We trust we shall be allowed to refer to this unpublished work, which is more than half printed off, and will be published very shortly. The full title will be:—Baron Carl Claus von der Decken's Reisen in Ost-Africa. Vierter Band: Die Vögel Ost-Africa's von Dr. O. Finsch und Dr. G. Hartlaub. Mit 11 Tafeln in Buntdruck. It will contain descriptions of all the birds, about 457 species, known from Eastern Africa, from the southern extremity of Mozambique up to Cape Gardafui and the Somali coast.

2. Neophron pileatus (Burch.).

Neophron pileatus, Rüpp. Syst. Uebers. p. 9. no. 3; Heugl. Syst. Uebers. no. 3; *id.* Faun. d. Roth. M. no. 1; Brehm, Erg. Reis. n. Habesch, p. 205. no. 1; Finsch & Hartl. Vögel Ostafr. p. 35. no. 3.
Cathartes monachus, Temm. Pl. Col. 222.

a. ♂. Zoulla. June 6th, 1868.
b. Zoulla. June 6th, 1868.

[Common from the coast to the highlands.—*W. J.*]

3. Gypaëtos meridionalis, Keys. & Blas.

Gypaëtos meridionalis, Keys. & Blas. Wirbelth. Eur. p. xxviii, Anm. (1840); Rüpp. Syst. Uebers. p. 1. no. 1; Heugl. Syst. Uebers. no. 1; *id.* Faun. des Roth. M. no. 6.

a. ♂ ad. Senafé. April 1868.
b. ♀ ad. Senafé. April 1868.
c. ♀ ad. Senafé. April 14th, 1868.

The distinctive characters pointed out by MM. Keyserling and Blasius for the African *Gypaëtus* (founded on specimens from the Cape of Good Hope) seem to be permanent. Besides the specimens collected by Mr. Jesse, there were two other specimens killed by a gentleman during the expedition. All these birds have the basal portion of the tarsus about three-quarters of an inch to one inch naked, and the space between the angle of the mouth and the ears devoid of black hairs, which are always present in the European *G. barbatus*. The latter species has the tarsus feathered to the base, otherwise there is no difference. The males are very deep fulvous underneath. The following are the dimensions of the specimens brought by Mr. Jesse:—

	Long. al.	Caud.	Culm.	Rict.	Tars.	Dig. int.
No. 1, ♂ . . .	2′ 4″	17½″	22‴	3″ 4‴	3″ 2‴	3″ 1‴
No. 2, ♂ . . .	—	17	23	3 6	3 6	3 5
No. 3, ♂ . . .	2 3	16	24	3 6	3 4	3 1
No. 4, ♀ . . .	2 3	18	21	3 1	3 8	3 3
No. 5, ♀ . . .	2 2½	15½	23	3 4	3 4	3 1.—*O. F.*

[The female (*c*) had the iris yellow, with an outer ring of blood-red; strong hairs over the nostrils; bill bluish horn-colour; feet bluish horn-colour; talons darker. I obtained three specimens of this splendid bird, among them a fine adult male. They were very plentiful in and about the camp at Senafé and further up the country. I never observed them lower than Rayrayguddy, and never saw the bird in the Bogos country. In flight and habits this species resembles the Kites much more than the Vultures. I had no opportunity of finding out whether it ever killed its own game, as there was always a superabundance of carrion about, though I never saw it feasting on a carcass; it always seemed to confine itself to picking up odd pieces of offal about the camp.—*W. J.*]

4. Aquila imperialis, Bechst.

Aquila imperialis, Rüpp. Syst. Uebers. p. 10. no. 12; Heugl. Syst. Uebers. no. 14.

a. ♂. Zoulla. March 3rd, 1868.

A very interesting specimen. It has not yet assumed the full livery, but has the black plumage mixed with some brown feathers, and on the shoulders a white patch is already visible. Not before recorded from the Abyssinian coast-land.—*O. F.*

[This was the only specimen seen or obtained by me, and was shot at Zoulla. It measured 6 ft. 5½ in. from tip to tip of the wings, and 2 ft. 5 in. from the tip of the beak to the extremity of the tail. Contents of stomach, birds. Iris brownish yellow or stone-colour; cere greenish; beak bluish horn-colour; legs and feet yellow; talons nearly black.—*W. J.*]

5. Aquila rapax, Temm.

Aquila nævioides, Cuv.; Heugl. Syst. Uebers. no. 16.
—— *albicans*, Rüpp. Neue Wirbelth. t. 13; Brehm, Reise nach Habesch, p. 206.
—— *rapax*, Rüpp. Syst. Uebers. pp. 7, 10. no. 15; Heugl. Syst. Uebers. no. 18; Brehm, Reise nach Habesch, p. 206; Finsch & Hartl. Vögel Ostafr. p. 44. no. 8.
—— *senegalla*, Heugl. Faun. d. Roth. Meer. no. 7.
—— *substriata*, Heugl. Syst. Uebers. no. 19.

a. ♀. Senafé. April 1868.
b. ♂. Senafé. April 1868.
c. ♂. Senafé. April 1868.
d. ♀. Rayrayguddy. April 27th, 1868 (no. 489).
e. ♂. Rayrayguddy. April 27th, 1868 (no. 407).
f. ♂. Gabena-Weldt-Gonfallon. August 6th, 1868 (no. 1592).
g. Mohaber. July 9th, 1868 (no. 1513).
h. ♂. Maragaz. July 27th, 1868 (no. 1028).

The fine series of specimens in Mr. Jesse's collection shows every gradation in colour, from pale brown (as in *A. albicans*, Rüpp.) to dark brown. The male specimen (*e*) is throughout blackish brown, as in *A. nævia*, excepting some of the upper tail-coverts, which are pale ochre-brown. Other specimens are light ochre-brown mixed with dark brown, especially on the shoulders. *A. rapax* is very nearly allied to our *A. nævia*, but is distinguished by the shorter tarsus and the elliptically shaped nostrils, which are situated perpendicularly, as in *A. clanga*, Pall.

	Long. al.	Caud.	Culm.	Rostr. a rict.	Tars.	Dig. inter.
No. 1, (?) . . .	19½″	10″	16‴	2″ 1‴	3″ 2‴	2″ 0‴
	18	10½	16½	2 3	3 2	2 0
	20	10	—	—	3 2	2 3.—*O. F.*

[No. 489, ♀. Iris brown; cere yellow; beak almost black; legs feathered to the foot; feet yellow; talons black.

No. 457, ♂. Iris yellowish grey; cere dirty yellow; beak bluish grey at base, black at tip; legs feathered to the foot; feet bright yellow; talons black.

The pair above noted were killed the same day, one on the nest, the other as he swooped down to look for his companion. These two examples sufficiently illustrate the variations to which this Eagle is subject—the female bird being almost entirely cream-coloured, and the male so brown as to be verging on black. The iris and beak are different in each. The nest was placed at the top of a gigantic Euphorbia, and was reached by a friend of mine, who, however, found neither eggs nor young, a few bones of the Klippspringer Antelope and a stone being all he got for his climb. The remaining five specimens I got vary considerably, none, however, being so dark or so light as the pair above mentioned. I procured this species at Senafé, Rayrayguddy, Maragaz (Bogos), and Gabena-Weldt-Gonfallon (Bogos).—*W. J.*]

6. Helotarsus ecaudatus (Daud.).

Helotarsus ecaudatus et *H. leuconotus* (Paul v. Würtemb.), Rüpp. Syst. Uebers. pp. 8, 10. no. 23 et 23*a*; Heugl. Syst. Uebers. nos. 35 et 36; *id.* Faun. d. Roth. M. no. 12; Brehm, Reise n. Habesch, p. 206. no. 10; Finsch & Hartl. Vögel Ostafr. p. 51. no. 12.

a. ♂. Maragaz. April 4th, 1868 (no. 1363).

The reddish-white colour of the back in this Eagle is, as Mr. Jesse's specimen shows, by no means a specific character, but seems to be rather a sign of old age. After a careful comparison of many specimens from all parts of Africa, I have come to the conclusion that there is only one species all over the continent.—*O. F.*

[Iris brown, skin round the eye coral-red; cere dark crimson; base of the beak pink, tip pale horn-colour; legs and feet coral-red; talons black.

The only specimen procured by me. Mr. W. T. Blanford obtained two, one shot near Senafé, the other from the Anseba. This species was more plentiful beyond Senafé, but very shy. On the Anseba it was by no means rare, and not so difficult of approach.—*W. J.*]

7. Buteo augur, Rüpp.

Buteo augur, Rüpp. Syst. Uebers. p. 10. no. 10; Heugl. Syst. Uebers. no. 12; Brehm, Habesch, p. 206. no. 6; Finsch & Hartl. Vögel Ostafr. p. 57. no. 15.

a. ♀. Senafé. April 12, 1868 (no. 146).

[Iris dark brown; cere greenish yellow; beak bluish horn-colour, the tip black; legs and feet light greenish yellow; talons black.

This bird was sent to me by a friend at Rayrayguddy. I subsequently shot one between Facado and Addigerat, but the skin was spoiled. I saw another specimen just before entering Goongoona. From information I obtained, this bird was much more plentiful further up the country. Contents of the stomach, lizards.—*W. J.*]

8. Milvus migrans (Bodd.).

Milvus ater, Heugl. Syst. Uebers. no. 59.
—— *migrans*, Finsch & Hartl. Vögel Ostafr. p. 61. no. 17.

a. ♀. Koomaylee. February 29th, 1868.
b. ♀. Koomaylee. March 3rd, 1868.
c. Mohaber. July 9th, 1868.

The occurrence of this species in this part of Africa, which hitherto rested on the authority of Major Harris, is now confirmed by Mr. Jesse. The Black Kite has not been recorded by any other traveller, and is not included in von Heuglin's valuable list of the Birds of the Red Sea.—*O. F.*

[Iris brown. Shot in companionship with many other Kites, among them another species, *Milvus forskali*, shot the same day.—*W. J.*]

9. Milvus forskali (Gmel.).

Falco parasiticus, Daud.
Milvus ater, Rüpp. Syst. Uebers. p. 11. no. 37.
—— *parasiticus*, Heugl. Syst. Uebers. no. 60; *id.* Faun. d. Roth. Meer. no. 16; Brehm, Habesch, p. 207. no. 14.
—— *forskali*, Finsch & Hartl. Vögel Ostafr. p. 63. no. 18.

a. ♂. Koomaylee. February 29th, 1868.

This species is distributed over the whole continent of Africa, Madagascar, some parts of Western Asia, and South-eastern Europe.—*O. F.*

[Iris yellow; cere bluish; beak dirty yellow.

This specimen was the only one I obtained, not that it was at all rare, but other birds occupied my attention; it was shot in company with the other species, *Milvus migrans*.—*W. J.*]

10. Falco tanypterus, Licht.

Falco biarmicus, Rüpp. Neue Wirb. p. 44.
—— *cervicalis*, Heugl. Syst. Uebers. no. 44.
—— *tanypterus*, Finsch & Hartl. Vögel Ostafr. p. 67. no. 20.

a. ♂. Senafé. March 29 (no. 156).

[Iris brown ?, rather too far gone to determine for certain; cere greenish yellow; beak pale horn-colour; legs and feet greenish yellow; talons black.

This, the only specimen which came into my possession, was shot near Senafé by a friend. Mr. W. T. Blanford also obtained the species. Contents of the stomach, small birds.—*W. J.*]

11. Falco barbarus, Linn.?

Falco barbarus, Salvin, Ibis, 1859, pl. 6 (ad.); Schl. Mus. P. B. Falcones, p. 5.
—— *lanarius alphanet*, Schl. Tr. sur la Fauconn. p. 23; *id.* Abhandl. Edelfalken, p. 16.
? *Falco peregrinoides*, Rüpp. Syst. Uebers. p. 11. no. 25; Heugl. Syst. Uebers. no. 42; *id.* Journ. f. Orn. 1868, p. 199.

a. Ain. July 5th, 1868 (no. 1746).

The difficulties in determining Falcons, in spite of the recent elucidation of many obscure points by ornithologists, have not entirely disappeared; for we are by no means satisfactorily informed on this subject, especially as regards the plumage of young birds. It is therefore in some instances almost impossible to determine young Falcons with any certainty, because the descriptions are often imperfect. Professor Schlegel, one of our first authorities on this group of birds, seems to be himself in great doubt on many points; at least he has altered his opinion several times.

The Falcon in Mr. Jesse's collection, which is undoubtedly a young bird in the first plumage, I must refer to *F. barbarus*, although it agrees very well with a specimen labelled *F. lanarius nubicus* (No. 2, femelle, dans la première livrée =*F. tanypterus*) in the Leiden Museum, where I had an opportunity of comparing it. Unfortunately I am only acquainted with the adult *F. barbarus* (as figured in the Ibis, *l. c.*), from which Mr. Jesse's specimen differs considerably. I append a full description of his bird.

Front whitish, each feather having a very narrow dark central line; forehead and a mystacal stripe blackish; the feathers on the vertex blackish, with rusty-brown margins, which become broader on the occiput, where the rusty colour prevails; nape and temples fulvous whitish, with large dark brown apical spots; all the upper parts and sides of the neck dark brown, the upper tail-coverts and the feathers on the bend of the wing margined with fulvous brown, the primaries with six or seven large rufous spots on the inner web and a narrow whitish apical margin; secondaries uniform dark brown on both webs; some of the shoulder-feathers very narrowly margined with rufous; tail-feathers dark brown, with a yellowish white end, about 5‴ broad; the four outer feathers with six to eight broad rufous cross bands on the inner web, being paler underneath; chin and cheeks with dark shafts; the rest of the under parts dark brown like the back, each feather having fulvous margins on each side, palest on the throat and breast, darker and broader on the vent and sides; tibia pale fulvous, with broad dark-brown shaft-stripes, the under tail-coverts the same, but the dark shaft-stripes reduced to a narrow central line; under wing-coverts dark brown, each feather with two to three rufous spots on each web; bill bluish horn-colour, blackish on the tip; cere bluish grey, like the legs; nails black.

The wings reach to the tip of the tail.

Long. tot.	Al.	Caud.	Culm.	Tars.	Dig. med.	
c. 15″	12″ 0‴	6″ 6‴	8‴	22‴	18‴	
—	11 3	6 2	9	20	19	ad. Niger.
—	11 7	5 9	9	21	24	♀. Damaraland.
—	11 6	5 9	9	22	24	♀. Cape. *F. minor*, Schlegel.

The old *F. barbarus*, of which I give the above measurements, I got in a collection of birds from Mr. Stevens marked "Niger" (Baikie), which, by the by, is a new locality for the species.

The young bird described above agrees very well with two young ones of *F. minor*, Schleg., from South Africa (one in the Bremen Museum, the other collected by Andersson in Damaraland); but the latter specimens have the secondaries with rufous cross bands which are also visible (but not so strongly) on the outer web, and are further distinguished by the considerably longer toes and shorter tail. As Professor Schlegel suggests, *F. minor* is restricted in its geographical range to Southern Africa. *F. tanypterus*, Licht., of which I examined several specimens, differs in its larger size and in having the cere and legs always yellow, even in the young birds, as Professor Schlegel observes. In that species also the quills do not reach to the tip of the tail.—*O. F.*

[Iris brown; cere dark horn-colour; beak, base light, tip dark horn-colour; legs and feet greenish yellow. The only specimen procured by me.—*W. J.*]

12. Tinnunculus alaudarius, Briss.

Tinnunculus alaudarius, Rüpp. Syst. Uebers. p. 11. no. 27.
Falco tinnunculus, Heugl. Syst. Uebers. no. 50.
Tinnunculus tinnunculus, Heugl. Fauna d. Roth. Meer. no. 14.

a. ♂. Zoulla. March 12 (no. 123).
b. ♀. Zoulla. February.
c. ♀. Ain. July 7 (no. 1910).
d. ♀. Goon Goona. May 2 (no. 1220).
e. ♂. Senafé. May 24.

[Iris dark brown; legs and feet gamboge-yellow.

This species I found widely diffused, obtaining specimens from Zoulla, Senafé, Goongoona, on the line of march with the troops, and Ain on the river Lebka; I also saw it on the Anseba in Bogos.—*W. J.*]

13. Nisus badius (Gmel.).

Nisus sphenurus, Rüpp. Syst. Uebers. p. 11. no. 41, t. 2; Heugl. Syst. Uebers. no. 66.
Micronisus guttatus, Heugl. Journ. f. Orn. 1861, p. 430.
M. sphenurus, Brehm, Habesch, p. 207. no. 16.
N. badius, Finsch & Hartl. Vögel Ostafr. p. 81. no. 28.

a. ♀. Ain. August 7 (no. 62).
b. ♂. Ain. August 17 (no. 48).

c. ♂. Ain. August 17 (no. 52).
d. ♂. Mohaber. July 8 (no. 1302).
e. ♀. Mohaber. July 8 (no. 668).
f. ♂. Mohaber. July 8 (no. 828).
g. ♂. Mohaber. July 8 (no. 1218).
h. Mohaber. July 8 (no. 468).
i. ♂. Mohaber. July 8 (no. 1443).
k. ♀. Mohaber. July 8 (no. 450).
l. ♂. Kokai. July 9 (no. 1908).
m. ♀. Gabena Weldt Gonfallon. August 7 (no. 1279.)

The fine series in Mr. Jesse's collection has convinced us more than ever that there is no difference between Rüppell's *Micronisus sphenurus* and the Indian *M. badius*. All the younger ones are spotted underneath, like Von Heuglin's *M. guttatus*, which was long before named *Nisus hybris* by Hemprich and Ehrenberg.—*O. F.*

[The specimen no. 52, *c*, had the iris orange-yellow; cere orange-yellow; beak dark horn-colour, nearly black; legs and feet orange-yellow, talons black.

Nos. 1218–19 had the iris pale lemon-yellow; cere pale lemon-yellow; beak dark horn-colour; legs and feet pale lemon-yellow, talons black.

Of this species I obtained a fine series of twelve specimens, the examination of which leads me strongly to doubt the validity of *M. guttatus* of Heuglin as a separate species from *M. sphenurus* of Rüppell. I have six specimens in both stages of plumage, among which the sexes are almost equally distributed. The principal difference in the plumage is, that in the adult birds the colour of the back is of a slaty blue, and on the breast minutely cross-barred with rufescent grey or pale cinnamon; these markings, be it noted, vary more or less in intensity in different specimens: in the young birds the back has a strong tinge of brown, and the breast shows much white, the feathers on the upper portion being blotched longitudinally, and those on the abdomen very broadly barred with pale cinnamon. I note also that each separate feather on the upper portion of the breast shows an incipient tendency to become barred near the root of the feather. Heuglin, I apprehend, bases his classification of *M. guttatus* as a distinct species from *M. badius* (*M. sphenurus*, Rüpp.) probably upon the differences I have alluded to, and the fact of his having seen pairs breeding in both varieties of plumage. This at first sight appears reasonable; but when I mention that I shot eight specimens on one morning within three quarters of a mile of one another, one double shot producing one of each variety, the total being three of one and five of the other, I cannot help thinking that *M. guttatus* is merely the immature bird of *M. badius*. I may also mention that Mr. W. T. Blanford, on the afternoon of the same day, shot four or five specimens on the same ground, and with the same variations. That gentleman also holds the same opinion as myself as to the two varieties belonging to one species, viz. *M. sphenurus* (Rüpp.). All ornithologists are aware of the different stages of plumage and also of the colouring of the iris, according to the age of the bird, to which many of

the Falconidæ are liable. I have another instance to quote, namely, in my series of *Aquila rapax*, which vary, in every stage of plumage, from a very dark brown to light cream-colour, the cream-coloured specimen being one of a pair of which the other was dark brown; the iris of the one was yellow stone-colour, and that of the other brown.

The contents of the stomach of these Sparrow-hawks were insects, mostly locusts. —*W. J.*]

14. Nisus gabar (Daud.).

Melierax gabar, Rüpp. Syst. Uebers. p. 12. no. 44.
Micronisus gabar, Heugl. Syst. Uebers. no. 63.
—— *niloticus*, Sundev.
Nisus gabar, Finsch & Hartl. Vögel Ostafr. p. 86. no. 30.

a. ♀. Senafé. May 22 (no. 1043).
b. ♀. Ain. August.

[Iris brown, eyelid bluish grey; cere coral-red; beak dark horn-colour; legs and feet coral-red, talons black.

I procured two specimens of this Hawk, both females—one in the valley at the back of Senafé rock, and the other at Ain on the Lebka. Contents of stomach, small lizards.—*W. J.*]

15. Nisus niger (Vieill.).

Micronisus niger, Heugl. Syst. Uebers. no. 64.
—— *miltopus*, Heugl. Journ. f. Orn. 1861, p. 428.
Falco carbonarius, Licht.
Nisus niger, Finsch & Hartl. Vögel Ostafr. p. 88. no. 31.

a. ♀. Hadoda Pass. April 2 (no. 178).

Agreeing with specimens from West Africa. The colouring of the cere and legs varies much in this species; the latter are mostly yellow, mixed with yellow. Sometimes the cere and legs are vermilion-red. This is the *M. miltopus* of Heuglin, from Sennahr; I have seen such red-legged specimens also from Damaraland in the collection of the late C. J. Andersson.—*O. F.*

[Iris brown; cere salmon-pink; beak black; tarsus pink, with scales of black (occasional) before and behind, inside of the foot salmon-pink, talons black.

This bird was shot up the Hadoda Pass; the only other specimens I saw were obtained by Mr. W. T. Blanford in the neighbourhood of Kokai—a pair, I believe. Those obtained by Mr. Blanford had been feeding on small birds, which rather surprised us both, as most of the smaller Falconidæ we obtained were insectivorous.—*W. J.*]

16. Melierax polyzonus, Rüpp.

Melierax polyzonus, Rüpp. Neue Wirbelth. t. 15; *id.* Syst. Uebers. p. 12. no. 43; Heugl. Syst. Uebers. no. 62; *id.* Fauna d. Roth. Meer. no. 18; Finsch & Hartl. Vögel Ostafr. p. 90. no. 32.

a. ♂. Between Amba and Waliko. August 4 (no. 1006).
b. ♂. Senafé. May 22nd (no. 1992).
c. ♂. Gelamet. August 11 (no. 7).
d. ♀. Zoulla. June 8.

[Iris brown, eyelid coral-red with tinge of orange; cere coral-colour tinged with orange; beak dark horn-colour; legs and feet coral, talons dark horn, nearly black.

This bird, of which I obtained three adult and one immature specimens, I found widely distributed. My examples came from Zoulla, Amba, Gelamet, and Senafé; it was also procured on the Anseba in the Bogos country. This distribution was irrespective of the time of year. Contents of stomach, lizards.—*W. J.*]

17. Circus pallidus, Sykes.

Strigiceps pallidus, Heugl. Syst. Ueber. no. 76; *id.* Fauna d. Roth. Meer. no. 23; Brehm, Habesch, p. 208. no. 17.

♂. Koomayli. March 23 (no. 194).
♂. Senafé. April 17 (no. 151).

Long. al.	Caud.	Culm.	Tars.	Dig. med.
13″	7″ 8‴	7‴	2″ 5‴	13‴
14	7 10	7	2 7	13

Both specimens are in full dress, identical with the old male figured by Naumann (t. 348. f. 1), having the under surface white, without rufous spots. No. 194 has some brownish feathers on the nape, being the remains of the immature plumage; and the dark bands on the tail feathers, five in number, are broader, and tinged with rufous on the outer web. In no. 151 the tail cross bands are more obsolete. Both specimens have the upper tail-coverts white, with broad greyish brown cross bands, three on each feather. There cannot be any doubt that both specimens belong to one and the same species, although there exists a considerable difference in the shape of the quills. As Professor Blasius has pointed out (Naumannia, 1857, p. 314), in *C. pallidus* the excision of the inner web of the first quill reaches to the end of the coverts of the primaries. This is the case in the specimen no. 151; but in no. 194 the excision of the first quill reaches nearly half an inch beyond the end of the first quill-coverts—this being a peculiar character of *C. cineraceus*, Mont. Another specific character, according to Blasius, peculiar to *C. pallidus*, is the third and fourth quill being equal in length. In that respect Mr. Jesse's specimens differ also a little—in no. 151 the fourth quill being 3 lines, in no. 194 5 lines shorter than the third. I mention these

differences only to prove how difficult it is to affix characters which are invariable, and that there always exist certain slight differences.—*O. F.*

[Iris pale yellow; legs and feet pale yellow.

A second specimen of this bird was procured (no. 151, ♂) at Senafé, on the 17th of April, 1868, which still bore signs of the first year's plumage.—*W. J.*]

Fam. STRIGIDÆ.

18. Athene perlata (Vieill.).

Athene pusilla, Rüpp. Syst. Uebers. p. 12. no. 51.
—— *occipitalis* et *A. pusilla,* Heugl. Syst. Uebers. nos. 81 & 82.
Strix licua, Licht. Verzeich. Samml. a. d. Kaffernland, 1842, p. 12.
Noctua perlata et *Noctua perlata capensis,* Schleg. Mus. P. B. *Striges,* p. 36.

a. ♂. Maragaz. July 27 (no. 537).
b. ♂. Sooroo. April 4 (no. 161).
c. ♂. Bejook. July 18 (no. 1174).
d. ♀. Senafé. May 22 (no. 1773).
e. ♂. Rairo. August 15 (no. 36).
f. ♀. Rairo. August 14 (no. 99).

The southern form (*Str. licua*, Licht.), which Schlegel keeps as a race, being generally a little darker-coloured than the north-eastern bird, is by no means separable. I have compared numerous specimens from Damaraland with others from North-east Africa, and could not detect any permanent difference. The fulvous cervical collar is somewhat paler and less defined, but I have seen north-eastern ones which also possess this peculiarity. In the females the fulvous collar is less visible.

Long. al.	Caud.	Culm.	Tars.	Dig. med.	
4″–4″ 4‴	2″ 9‴–2″ 11‴	5½‴	8½‴	7‴.	North-eastern Africa.
3″ 9‴–4″	2″ 6‴–2″ 10‴	5½‴–6‴	8½‴–9‴	7‴.	Damaraland.

An allied but well-distinguished species is *A. spilogastra*, Heugl. (Journ. f. Orn. 1863, p. 15), of which Dr. v. Heuglin obtained one specimen in the Samchara. I had expected to find this rare species in the collection of Mr. Jesse.—*O. F.*

[Iris lemon-yellow; beak greenish yellow; legs and feet greenish yellow, talons pale horn-colour.

The six specimens procured were from Sooroo, Senafé, Bejook (Bogos), Maragaz (Bogos). The position of this bird on a tree is not upright as with most owls, but thrush-like. The different localities are all about the same elevation; the specimen procured at Senafé was in the valley at the back of Senafé rock, say 4000 feet above the level of the sea.—*W. J.*]

19. Bubo ascalaphus, Savigny.

Bubo ascalaphus, Rüpp. Syst. Uebers. p. 12. no. 55; Heugl. Syst. Uebers. no. 85.

a. ♂. Senafé. April 11 (no. 188).

Abyssinia is a new locality for this species, which had hitherto only been observed as far south as Nubia.—*O. F.*

[Iris bright lemon-yellow; beak dark horn-colour; legs and feet feathered to the talons.

This is the only specimen obtained by me of this Owl; it was shot among the rocks near Senafé: there was another, but I did not suceeed in getting it. The only subsequent occasion on which I saw this bird was at Guinea-fowl Plain, near Undel Wells. I saw a live specimen which had been brought down from Magdala, where I understood they were plentiful.—*W. J.*]

20. Bubo lacteus (Temm.).

Bubo lacteus, Rüpp. Syst. Uebers. p. 12. no. 53; Heugl. Syst. Uebers. no. 87.
—— *cinerascens,* Brehm, Habesch, p. 208.
—— *verreauxi,* Bp.
—— *lacteus,* Finsch & Hartl. Vögel Ostafr. p. 101. no. 39.

a. ♀. Rayrayguddy. May 9 (no. 121).

[Iris bright yellow; beak pale horn-colour, almost white towards the end; legs and feet feathered nearly down to the talons.

This, the only specimen I procured of this magnificent Owl, was shot at Rayrayguddy by a friend and sent to me. I never saw this species alive until I arrived on the banks of the Anseba in July, where I saw three one day sitting in a row on a large tree on the borders of a nullah; but being out after rhinoceros, neither Mr. W. T. Blanford nor myself could fire. This I regret, as on returning to the same place the next day we did not succeed in finding them; but a short time after, Mr. Blanford shot one near Kokai. Contents of stomach, large locusts and larvæ.—*W. J.*]

21. Scops senegalensis, Sws.

Scops vulgaris, Heugl. Syst. Uebers. no. 83; *id.* Fauna d. Roth. Meeres, no. 26.
—— *senegalensis*?, Heugl. Journ. f. Orn. 1863, p. 14.
—— *zorca africanus,* Schleg. Mus. P. B. *Oti,* p. 20.

a. ♀. Undel Wells. April 6 (no. 477).

Long. al.	Caud.	Culm.	Tars.	Dig. intern.	
4″ 9‴	2″ 2‴	5½‴	10‴	7‴	
4 8 –5″ 1‴	2 3 –2″ 5‴	5½	10½–12‴	7 –8‴	*senegalensis.* Gambia.
5 10 –6	2 5 –2 7	5–5½‴	11 –12	7	*zorca.* Europe.

The African *Scops* agrees in every respect with our European *S. zorca*, except the shorter wings, this being, as far as I could find out, a permanent character, common

also to specimens from the west and north-east as well as to those from the south (*Strix latipennis*, Licht.). I do not hesitate to regard this peculiarity as of specific value.—*O. F.*

[Iris bright yellow; beak dark horn-colour, tip of lower mandible pale yellow; legs and feet feathered to the foot.

This is the only specimen I procured of this species, though plentiful about Undel Wells. The cry at night, when it sits perched up in a mimosa tree, is a low whistle repeated at regular intervals.—*W. J.*]

22. Otus brachyotus, L.

Otus brachyotus, Rüpp. Syst. Uebers. p. 12. no. 56.
Ægolius brachyotus, Heugl. Syst. Uebers. no. 94.

a. ♂. Zoulla. March 11 (no. 190).

This cosmopolitan species, which is known from nearly every part of our globe, had not yet been recorded from the shores of the Red Sea. Specimens from the Sandwich Islands are in the Berlin Museum. *Otus galapagoensis*, Gould (Voy. 'Beagle,' pl. 3), from the Galapagos, is clearly the same species.—*O. F.*

[Iris bright lemon.

Only once did this bird come under my observation during my stay in Abyssinia. Contents of stomach, bones of small birds.—*W. J.*]

23. Strix flammea, L.

Rüpp. Syst. Uebers. p. 12. no. 59; Heugl. Syst. Uebers. no. 95; Brehm, Habesch, p. 265; Finsch & Hartl. Vögel Ostafr. p. 111. no. 44.

[Eye black.

This solitary specimen of our old friend the Barn-owl was shot in the Mangroves on the shore of Annesley Bay, and was the only instance of my meeting with this bird during my stay in Abyssinia.—*W. J.*]

Order PASSERES.

Fam. CAPRIMULGIDÆ.

24. Caprimulgus inornatus, Heugl. (MS.). (Plate XXIV.)

Caprimulgus inornatus, Finsch & Hartl. Vögel Ostafr. p. 120 et p. 855. no. 46.
Caprimulgus, sp.?, Heugl. Fauna d. Roth. Meer. no. 30 et p. 30 (descr.).

a. ♀. Koomaylee. March 18 (no. 152).
b. ♂. Ain. July 5 (no. 1768).
c. ♂. Ain. July 5 (no. 703).
d. ♂. Ain. July 5 (no. 1754).
e. ♂. Ain. July 5 (no. 1352).

f. ♂. Kokai. August 9 (no. 1262).
g. ♂. Kokai. August 9 (no. 1642).
h. ♀. Kokai. August 9 (no. 890).
i. ♀. Kokai. August 9 (no. 1566).
k. ♀. Kokai. August 9 (no. 1227).

Long. al.	Caud.	Culm.	Rost. rict.	Tars.	Dig. int.	
5″ 7‴	4″ 3‴	3‴	12‴	7½‴	7‴	. . . ♂, no. 1754.
5 9	4 2	—	—	—	—	. . . ♂, no. 1352.
5 10	4 4	—	—	—	—	. . . ♂, no. 1768.
6 1	4 3	—	—	—	—	. . . ♂, no. 1642.
6 1	4 6	—	—	—	—	. . . ♂, no. 703.
6 4	4 8	—	13	8	7½	. . . ♂, no. 1262.
6 0	4 5	—	—	—	—	. . . ♀, no. 152.
6 1	4 4	—	—	7½	7	. . . ♀, no. 1566.
6 2	4 3	—	—	—	—	. . . ♀, no. 1227.
6 4	4 5	—	—	8	8	. . . ♀, no. 890.

Male.—All the upper parts, the sides of the head and neck, the throat, and breast of of a greyish brown ground-colour, washed with a faint tint of rufous, which is sometimes more decided, and gives a reddish appearance; all the feathers speckled very minutely with dark brown; on the head some blank shaft-stripes, on the shoulders some larger patches, the end of the outer web of the same colour; the upper quill-coverts with some yellowish fulvous apical spots; the quills dark brown, the first and fourth with a large white patch on the inner web, the second and third with a broad white cross band on both webs, the remaining quills with five yellowish rufous cross bands, which are broader on the inner web, and more or less variegated with darker colour; the point of the quills variegated with pale brown; an ochre-yellow gular patch, undulated with dark brown; on the throat and breast some pale fulvous spots, the same as on the neck behind; rest of the under parts and under quill-coverts ochre-yellow, with narrow dark cross lines (sometimes wanting on the under tail-coverts); tail-feathers dark greenish brown, variegated with ochre-yellow and seven or eight narrow black cross bands; the two outer tail-feathers white on the apical half of both webs.

The female is similar to the male, but wants the white end of the two outer tail-feathers, and the white patches on the primaries, which have from four to six rufous cross bands on the outer web, and three to five on the inner web of the same colour, the one nearest to the apex being very extended; the two outer tail-feathers are crossed with from eight to eleven dark and ochre-yellow bands, and have a broad ochre-yellow end, speckled more or less with dark brown.

The specimens in the fine series collected by Mr. Jesse exhibit considerable variety. The ground-colour is more or less dark, in one specimen decidedly greyish brown; the ochre-yellow spots on the quill-coverts, the breast, and hind neck are in some specimens

well marked, in others scarcely visible; the ground-colour of the belly varies also from pale to dark ochre-yellow. The type specimen in the Bremen Museum has the upper parts, the throat, and breast washed strongly with a singular cinnamomeous rufous, which is not so distinctly visible in any of Mr. Jesse's specimens. The measurements also vary much.

A more complete description of this new species, which was first obtained by Von Heuglin on the Somali coast, will be given in the 'Birds of East Africa,' as cited above. Dr. v. Heuglin collected this species also in the Bogos country, where it seems to be very abundant.

It bears a great resemblance to *C. tristigma*, Rüpp. (Syst. Uebers. t. 3. s. n. *poliocephalus*), of which I have examined the type specimen; but the latter has a large white patch on the throat, and is larger (al. nearly 7″). The absence of white patches on the chin, throat, and ears, and of a well-marked neck-collar, is an important peculiarity of this species.—*O. F.*

[Eye black; beak flesh-colour, tipped with black; legs and feet grey, middle toe serrated.

Of this species a series of ten specimens was procured from Koomayli, Ain, and Kokai, where it was plentiful.—*W. J.*]

Fam. CYPSELIDÆ.

25. Cypselus apus (Linn.).

Cypselus barbatus, Gurney, Ibis, 1868, p. 152.
—— *apus*, Rüpp. Syst. Uebers. p. 22. no. 68.
Heugl. Syst. Uebers. p. 105.
Cypselus, sp.?, no. 11 et 12, Heugl. J. f. Orn. 1861, p. 422.
Cf. Sclat. Monogr. Cypsel. Proc. Zool. Soc. 1865, p. 599.

a. ♂. Senafé. April 24.
b. ♂. Maragaz. July 27.
c. ♂. Maragaz. July 27.
d. ♂. Maragaz. July 27.
e. Maragaz. July 27.
f. ♂. Gelamet. August 11.
g. ♂. Gelamet. August 11 (no. 43).

The fine series of our common Swift in the collection of Mr. Jesse gives me a welcome opportunity of making some remarks on the occurrence of that species in Africa, a subject which I have been intending to treat of for a long time, having been able to give a great deal of attention to the subject. Dr. Sclater, in his valuable 'Monograph of the Cypselidæ,' notices a South-African *Cypselus* as being different from our well-known species in its lighter colouring above, and also in having the feathers of the lower part of the back, belly, and under wing-coverts margined with white. Such specimens are labelled "*Cypselus barbatus*" in the Leyden Museum—a

MS. name of Temminck. From the probability of these differences proving to be permanent, Dr. Sclater is not unwilling to base upon them a species, but not having specimens enough, he abstains from speaking decisively on the subject. Mr. Tristram (Proc. Zool. Soc. 1867, p. 887), maintaining that all the southern specimens agree in these peculiarities, declares with more certainty that *Cypselus barbatus* is a well-determined species, being "the South-African representative" of *Cypselus apus*. Having had opportunities of examining a great number of *Cypselus apus* from different parts of Africa (Sennahr, Bogosland, Benguela, Damaraland, the Cape, and Natal), I must say that the so-called *Cypselus barbatus* is nothing more than the *young* bird of our *C. apus*. It is known that our Swift is one of those migratory birds which come latest and depart earliest. Von Heuglin met with the Swift in the beginning of August in Bogosland, and Mr. Jesse in the same country some days earlier, viz. in the end of July (27th). Mr. Victorin observed them in the Cape Colony already in the middle of August. During their stay in Europe they breed, as every body knows, and, after this period, depart as soon as their young ones are able to accompany them. It seems that these young Swifts in the first plumage are less known to ornithologists; for they bear the same white margins on the feathers as the South-African "*C. barbatus*." The old Swifts, when they leave us, have also considerably lighter colours, and change their plumage during their stay in Africa. I have seen many African specimens which were partially moulting. A specimen from Benguela, which M. Barboza du Bocage, believing that it might be new, sent for inspection to Bremen, had the wings 1 inch shorter, and the primaries just developing. There is also a great variation in the extent of the white markings. The above-mentioned specimen from Benguela is greyish brown, having each feather margined with light greyish; the gular patch is greyish white, and very extended. Another one (Cape Town, November 9th) is dark above, only the feathers on the vent, crissum, and under tail-coverts having white margins. A male (Cape Town, November 8th) very similar, but the light margins rather narrower. A male (Damaraland, October 14th) somewhat lighter, nearly without white margins; the white gular patch well defined. Specimens from North-eastern Africa agree in every respect; the white margination varies in individuals. An old female (Chartum, September 26th) wants the white margin, and is nearly as dark as the European ones. The narrow black central line on the feathers of the white gular patch, which Mr. Tristram mentions in the African *C. barbatus*, is not at all a character of specific value; for this peculiarity we find in other species of Swifts (e. g. *C. caffer*, *affinis*, &c.), also sometimes wanting or more or less defined.

To speak with greater certainty on this subject I submitted the Benguela and some white-margined specimens from Bogosland for inspection to Professor Blasius, of Brunswick, one of our first authorities on European ornithology, as is well known by every body. In his kind answer, Professor Blasius writes to me:—"Your specimens from Mossamedes and Bogos are nothing more than the young *C. apus*, and I cannot

distinguish them from others collected in our country. No practised ornithologist would hesitate for one moment to express the same opinion, and I am astonished to hear that there can be any question about it. I possess also such young ones from Nubia, as well as old specimens from the Cape and Nubia, which agree, in the darkness of coloration throughout, with specimens from Germany."

Another very important proof that there cannot be a real specific difference is the well-known fact that the so-called *C. barbatus* is only a winter visitor in Africa, and does not breed there, neither in the Cape Colony, nor in North-east Africa. Mr. Layard has given some valuable observations about it, which prove undoubtedly the migratory habits of the southern *Cypselus*. I cannot, therefore, perceive how it is possible to call a periodical visitant, which stays only for a few months, a "representative species" of our *C. apus*. About the migration of this species we are also very well informed. Dr. Brehm has published valuable observations (Journ. f. Orn. 1853, p. 453) made by him in North-east Africa, where *C. apus* goes further than the White Nile; and Dr. Bolle states not only that the Swift is a winter visitor in the Canaries, but that he met with single pairs breeding in Ciudad de las Palmas in the month of July (Journ. f. Orn. 1857, p. 322).

The following measurements, taken from more than twenty-five specimens, will show that there is no difference in dimensions:—

Long. al.	Rectr. intern.	Rectr. ext.	
6″ 3‴–6″ 7‴	1″ 6‴–1″ 10‴	2″ 5‴–2″ 10‴	. . . . Bogosland.
6 8	1 8	2 9	. . . . Chartum.
6 1 –6 5	1 7	2 8	. . . . Damaraland.
6 6	1 8 –1 10	2 7 –2 9	. . . . Cape Town.
5 6	1 4	2 4	. . . . Benguela (in moult).
6 3 –6 6	1 7	2 7 –2 10	. . . . Germany.

I may also be allowed to express my doubts about *Cypselus gutturalis*, Vieill., declared not long ago by Mr. Tristram[1] to be the southern representative of our *C. melba*, and to be distinguished at once by the darker colour above and the very broad jugular collar. The only reference to *C. gutturalis* is Levaillant's "*Martinet à gorge blanche*," figured in his 'Oiseaux d'Afrique,' pl. 243. Professor Sundevall, who inspected South-African specimens himself, declares, in his meritorious Key to the work of Levaillant, that this figure belongs undoubtedly to *C. melba*. I can confirm this so far, as we possess a specimen from Switzerland which agrees very well with Levaillant's figure, having the jugular cross band very broad (more than one inch), whereas another specimen from the same locality has it scarcely half an inch broad. I believe, therefore, that it will be necessary to examine a large series before one can say decidedly that the southern *C. melba* is of a different species.—*O. F.*

[Iris brown; beak black; legs and feet black.

[1] Proc. Zool. Soc. 1867, p. 887.

Common at Senafé (April), Kokai and Maragaz (August), flying in circles in large numbers. Not seen in the lowlands.—*W. J.*]

26. Cypselus caffer, Licht.

Cypselus pygargus, Temm. Pl. Col. 460. f. 1.
?*Cypselus abyssinicus*, Heugl. Journ. f. Orn. 1861, p. 422 (*C. gularis*, in litt.).
Cypselus streubelii, Hartl. Journ. f. Orn. 1861, p. 418.
—— *abyssinicus*, Brehm, Habesch, p. 209. no. 22.

a. ♀. Rayrayguddy. May 27.

Agrees with a Natal specimen in the Bremen Museum. The white gular patch is more defined in the middle of the chin and throat, becoming on the latter broader. The white feathers on the rump have a narrow dark central line, more visible in the South-African specimen. In another specimen from Abyssinia, in the Bremen Museum, these dark central lines on the feathers of the rump are scarcely visible, and the white on the chin and throat is very extended, reaching on each side to the cheeks; this specimen shows also a light supraocular stripe. I was inclined to take these differences as being of specific value; but having seen southern specimens in which the white on the throat is extended as widely, I can only see therein individual variety, and this especially as there are intermediate forms. A specimen from Dembea, in Von Heuglin's collection, exhibits not the slightest difference from our Natal specimen. Dr. v. Heuglin, who compared it with southern ones in the Stuttgart Museum, believed it might be a new species, and named it previously *C. gularis*. It may therefore be considered, as a rule, that the *Cypseli* vary considerably in the peculiarities mentioned above.

Long. al.	Rect. int.	Rect. ext.	Culm.	Tars.	
5″ 2‴	1″ 5‴	2″ 7‴	20‴	4‴	. . . Abyssinia.
5 4	1 6	2 1	—	—	. . . Abyssinia.
5 0 –5″ 3‴	0 0	2 6 –2″ 9½‴	—	—	. . . Abyssinia (after v. Heuglin in litt.).
5 7	1 8	2 9	—	—	. . . Natal.—*O. F.*

[Saw a small colony among the rocks at Rayrayguddy.—*W. J.*]

27. Cypselus affinis, J. E. Gray.

Cypselus affinis, Ill. Ind. Zool. pl. 35. f. 2.
—— *abyssinicus* (Hempr. & Ehrb.), Streubel, Isis, 1848, p. 354; Heugl. Fauna d. Roth. Meer. no. 31.
—— *galilæensis*, Antin.
—— *caffer*, Cab. Mus. Hein. ii. p. 85.

a. ♂. Sooroo. May 30.
b. ♂. Sooroo. May 30.
c. Sooroo. May 30.

Easily distinguished from the foregoing species by the tail being nearly straight; otherwise quite the same.

Dr. Sclater has already pointed out the identity of Indian and African specimens of this species (Proc. Zool. Soc. 1865, p. 603). After having examined numerous specimens from India, Palestine, Sennahr (s. n. *caffer* in Mus. Hein.), the Blue Nile, Anamaboë (Gold coast), St. Thomé, Ilha do Principe, and the Cape, I am quite of the same opinion as Dr. Sclater, and can give some further additions to the knowledge of this species.

The variableness in the intensity of colouring, the greater or less extension of the white gular patch of feathers, and the existence of a more or less visible paler superciliary stripe are as noticeable as in *C. apus*; young ones also show the whitish margination on the feathers of the under parts.

The specimens in Mr. Jesse's collection agree in every respect with those from the Himalayas and Palestine; the latter show the white gular patch rather extended, and an ill-defined pale supraocular stripe, which is more visible in a Cape specimen in the Bremen Museum; the latter has on the feathers of the white gular patch a narrow dark central line. A specimen from St. Thomé agrees in this respect; but the plumage is darker, of a deep greenish black, like *C. caffer*. A specimen from Anamaboë is similar to the Himalayan one; but the feathers on the head and rump have light margins, and the gular patch is less extended and without dark central lines. A specimen (♂) from the Blue Nile (collected by A. Brehm) is much lighter; the feathers on the head and under parts have pale narrow margins; the white gular patch is very extended, not being confined to a median patch, but beginning on each side of the mandible and covering the whole chin and throat to the jugulum; the primaries have, like the Anamaboë specimens, narrow light apical margins. *C. caffer* in the Museum Heineanum, which I examined, is this species.

The measurements of the different specimens are as follow:—

Long. al.	Caud.	Culm.	Tars.	
4″ 9‴–5″	1″ 7‴–1″ 8‴	—	—	. . . Bogosland.
5	1 8	$2\frac{1}{2}$‴	4‴	. . . Palestine.
4 10	1 7	—	—	. . . Himalaya.
4 8	1 6	—	—	. . . South Africa.
5 1	1 9	—	—	. . . Blue Nile.
5 1	1 7	—	—	. . . St. Thomé.
4 10	1 8	—	—	. . . Ilha do Principe.
4 5	1 $6\frac{1}{2}$	—	—	. . . Anamaboë.—*O. F.*

[Common about Sooroo.—*W. J.*]

Fam. HIRUNDINIDÆ.

28. Atticora pristoptera (Rüpp.).

Hirundo pristoptera, Rüpp. Neue Wirbelth. t. 39. f. 2.
Chelidon pristoptera, Rüpp. Syst. Uebers. p. 22. no. 81; Heugl. Syst. Uebers. no. 121.
Atticora pristoptera, Brehm, Habesch, p. 209. no. 23.

a. ♂. Rayrayguddy. April 27th (no. 109).
b. ♂. Bejook. July 18th (no. 1232).

[Iris dark brown; beak black; legs and feet black.
Another specimen procured at Bejook in July.—*W. J.*]

29. Hirundo æthiopica, Blanf.

Hirundo æthiopica, Blanf. Ann. N. H. ser. 4. iv. p. 329 (1869).
Cecropis rufifrons, Heugl. Syst. Uebers. no. 113; Brehm, Habesch, p. 209. no. 26.

a. ♂. Kokai. July 13th (no. 1813).
b. ♀. Bejook. July 17th (no. 1368).

This Swallow has often been confounded with the *Hirundo albigularis*, Strickl. (Contrib. to Orn. 1849, t. 17; *H. albigula*, Bp. Consp. p. 338), from South Africa, being exactly similar in colours, but distinguishable at once by the smaller size.

Long. al.	Rect. ext.	
3″ 10‴–4″	2″ 3‴–2″ 5‴	. . . *æthiopica*. N.E. Africa.
4 9 –5	2 9 –2 10	. . . *albigularis*. S. Africa.

The steel-blue band across the jugulum is sometimes ill defined and incomplete. Levaillant's figure and description of his "*Hirondelle à front roux*" (pl. 245. f. 2; *H. rufifrons*, Vieill. Enc. Méth. p. 524) are incorrect in having the chin and throat black, but are most probably referable to the southern species.

H. æthiopica is the common House-swallow in South Nubia, Cordofahn, Sennahr, and Bogosland; Von Heuglin gives interesting notices about its breeding in the Bogos country. It is strange that Rüppell has overlooked a species so common as this.—*O. F.*

[Iris dark brown.
Two specimens procured at Kokai; not observed elsewhere.—*W. J.*]

30. Hirundo puella, Temm.

Hirundo puella, Temm. Fauna Japon. p. 33 (1842).
—— *abyssinica*, Guér. Rev. Zool. 1843, p. 322; *id.*, Ferret et Galinier, Voy. en Abyss. Atlas, t. 10.
Cecropis striolata, Rüpp. Syst. Uebers. p. 22. no. 74, t. 6; Heugl. Syst. Uebers. no. 115; Brehm, Habesch, p. 209. no. 25; Finsch & Hartl. Vögel Ostafr. p. 140. no. 57.

a. ♂. Senafé. May 21st, 1868 (no. 1486).
b. ♂. Rayrayguddy. April 27th, 1868 (no. 481).
c. ♂. Rayrayguddy. May 27th, 1868.

There is no difference between specimens from Western and North-eastern Africa. Temminck's name has the priority.—*O. F.*

[Iris dark brown; beak black; legs and feet black.

Rayrayguddy and Senafé, May and June; not observed in the plains, nor on the Anseba. It was found associating with *Atticora pristoptera* and *Cotyle fuligula*.—*W. J.*]

31. Cotyle fuligula (Licht.).

Hirundo fuligula, Licht. Verzeich. Samml. aus dem Kaffernl. (1842) p. 18.
Hirondelle fauve, Levaill. Ois d'Afr. t. 246. f. 1.
Hirundo rupestris, Less. Man. d'Orn. i. p. 419.
—— *capensis*, Less. Tr. d'Orn. 1831, p. 269.
—— *rupestris*, jun., Tem. Man. d'Orn. i. p. 431, iii. p. 302.
—— *hyemalis*, Forst. Descr. Anim. p. 55.

a. ♂. Rayrayguddy. May 27.

Long. al.	Rectr. intern.	Rectr. extern.	Culm.	Tars.		
4″ 5‴	1″ 7‴	1″ 11‴	$3\frac{1}{2}$‴	5‴	*a*.	
4 6	—	1 10	—	5	*b*.	
4 6–4″ 10‴	—	2 1	$3\frac{1}{4}$–$3\frac{1}{2}$‴	5–6‴	*fuligula*.	Caffreland (Mus. Berol.).
4 5–4 11	1 6 –1″ 10‴	1 11–2″ 1‴	3 –$3\frac{1}{2}$	5–6	*rupestris*.	Europe.

Nearly allied to our *C. rupestris*, Scop., but of a darker brown above, on the sides, vent, and under tail-coverts; chin and throat pale fulvous; the second, third, fourth, and fifth tail-feathers with a large oblong white mark on the inner web, like *C. rupestris*. The young bird of the latter is very similar to *C. fuligula*, but has all the under parts of a light rusty brown, with indistinct brownish spots on the throat, and the feathers of the upper parts edged with a pale rusty brown.

The specimens collected by Mr. Jesse are the same as those from South Africa in the Berlin Museum, except the under wing-coverts being dark brown, with rusty margins, whereas in the southern specimens the under wing-coverts are of a more uniform fulvous.

The occurrence of *C. fuligula* in North-east Africa is a new fact for the geographical distribution of this species, which was hitherto known only from South and West Africa.—*O. F.*

[Rather common among the rocks as far down as Sooroo.—*W. J.*]

Fam. TROGONIDÆ.

32. Trogon narina, Vieill.

Levaill. Ois. d'Afr. t. 228, 229; Heugl. Syst. Uebers. no. 127; *id.* Fauna des Roth. Meer. no. 39; Brehm, Habesch, p. 210. no. 36; Finsch & Hartl. Vögel Ostafr. p. 155. no. 67.

a. ♂. Taconda. April 21st, 1869 (no. 193).

There is only one species of this (chiefly American) family distributed over the whole of tropical Africa. Dr. Brehm got the *T. narina* in the Bogosland, and Von Heuglin observed it in the Abyssinian coast lands.—*O. F.*

[I obtained only one example of this Trogon, and only know of one other specimen being procured during the expedition, by Lieut. Sturt. Contents of stomach, insects; among them a large *Mantis*. I am almost positive I saw this bird near Gelamet; but, after a long chase, I returned without shooting it. The specimen obtained was sent me in the flesh by Major Thelwall, who shot it.—*W. J.*]

Fam. CORACIADÆ.

33. Eurystomus afer (Lath.).

Eurystomus orientalis, Rüpp. Syst. Uebers. p. 33. no. 82; Heugl. Syst. Uebers. no. 123.
—— *afer*, Finsch & Hartl. Vögel Ostafr. p. 150. no. 63.

a. ♂. Kokai. July 10 (no. 1180).
b. ♂. Kokai. July 11 (no. 1376).
c. ♂. Kokai. July 11 (no. 1388).
d. ♂. Kokai. July 12 (no. 1705).
e. ♂. Kokai. July 12 (no. 984).
f. ♀. Waliko. July 19 (no. 1515).

Long. al.	Caud.	Culm.	Tars.	
6″ 9‴–7″	3″ 1‴–3″ 3‴	12‴	8‴	
6 1 –6 7‴	3 –3 4	8	8	. West Africa.
6 10	3 5	10	—	. Mozambique.

The North-east African specimens are larger than western; but there are intermediate forms in specimens from East Africa, which are also larger, and nearly as big as the Madagascarian *E. madagascariensis*, Gmel. The latter has been procured at Mozambique, and seems to be scarcely distinguishable as a species.—*O. F.*

[Iris dark brown; beak lemon-yellow or chrome-colour.

This bird is an active, noisy individual, and during the breeding-season, like the Missel-thrush at home, drives all intruders from the neighbourhood, even Kites, Vultures, and Eagles. Its flight is singularly rapid and Hawk-like, though without, as far as I saw, the characteristic rolling motion observed in that of *Coracias abyssinica* and *Coracias pilosa*. I have seen these birds (*Eurystomus afer*) in company with *C. pilosa* and *Caprimulgus inornatus* hawking the ants which fly in the gloaming. It was procured and observed only at Kokai on the Lebka, and on the Anseba, in July and August, where it was plentiful.—*W. J.*]

34. Coracias abyssinica, Linn.

Coracias abyssinica, Rüpp. Syst. Uebers. p. 23. no. 84; Heugl. Syst. Uebers. no. 125; *id.* Fauna des Roth. Meer. no. 37; Brehm, Habesch, p. 210. no. 31.

a. ♀. Lake Ashangi. April 2.
b. ♂. Kokai. July 9.
c. ♂. Kokai. July 9.
d. ♂. Kokai. July 11 (no. 1204).
e. ♀. Kokai. July 11 (no. 1400).
f. ♂. Bejook. July 18.
g. ♂. Waliko. July 29 (no. 1978).

[Iris brown; legs and feet greenish yellow.

Procured on Lake Ashangi by Mr. W. T. Blanford (from whom I received my first

specimen), 2nd April, 1868, and at Kokai and Waliko in July. I also observed this bird in the desert near Amba in August. Noisy, like the other two species; flight peculiar, rolling right and left, the body acting as the pivot. I shot a young bird also in August, without the long tail-feathers, and with the yellow edge to the base of the bill common to birds just fresh from the nest. Plentiful at Kokai and the Anseba. —*W. J.*]

35. Coracias pilosa (Lath.).

Coracias levaillanti, Rüpp. Syst. Uebers. p. 23. no. 85; Heugl. Syst. Uebers. no. 126.
—— *pilosa,* Heugl. Fauna d. Roth. Meer. no. 38.

a. ♂. Koomaylee. March 22 (no. 166).
b. ♀. Senafé. May 13 (no. 1932).
c. ♀. Kokai. July 9 (no. 530).
d. ♂. Kokai. July 11 (no. 1316).
e. ♂. Kokai. July 11 (no. 1986).
f. ♀. Maragaz. July 27.

Al.	Caud.	Culm.	Tars.	Dig. int.	
6″ 10‴	5″	15‴	10½‴	10½‴	Abyssinia.
6 10	5 2‴	15½	11	11	Gambia.
7	4 7	17	12	— . . . ♂.	Damaraland.
7 6	5 4	16	12	—	Damaraland.

There is no difference between specimens from the north-east, west, and south, either in coloration or in size. I cannot agree with Dr. v. Heuglin, who considers the north-eastern ones to be permanently smaller.—*O. F.*

[Iris brown; legs and feet dirty greenish yellow.

Procured between Koomaylee and Sooroo, 22nd March, 1868; Senafé May 13th. The only specimens I ever saw were shot about there or up the passes through which the expedition passed. It was plentiful at Kokai on the Lebka and along the river Anseba. At Kokai, shot while hawking flying ants in the gloaming, in company with a number of *Caprimulgus inornatus* and a few *Eurystomus afer*. Noisy.—*W. J.*]

Fam. ALCEDINIDÆ.

36. Halcyon senegalensis (Linn.).

Halcyon cancrophaga, Heugl. Syst. Uebers. no. 129.
—— *senegalensis,* Finsch & Hartl. Vögel Ostafr. p. 157. no. 68.

a. ♂. Maragaz. July 29 (no. 1).
b. ♀. Maragaz. July 29 (no. 1161).
c. ♀. Gabena Weldt Gonfallon. August 7 (no. 1885.)

Not yet observed from Bogosland.—*O. F.*

[Iris brown; beak, upper mandible crimson, lower black.

Three specimens obtained on the Anseba during July and August. This bird made its appearance rather suddenly from the northward, down the river Anseba, the first being seen by Mr. W. T. Blanford below Maragaz: by the time our last specimen was shot they had made their way up to Gabena Weldt Gonfallon; and I saw one between that place and Keren. I take it, from this, that this species is migratory. At the time it appeared, the rains had just commenced; so probably this may have in some way influenced its arrival in those parts. I did not meet with this bird anywhere else while with the expedition, nor did Mr. W. T. Blanford. Contents of stomach, Coleoptera.—*W. J.*]

37. Halcyon semicærulea (Forskål).

Halcyon semicærulea, Rüpp. Syst. Uebers. p. 23. no. 87; Heugl. Syst. Uebers. no. 128; *id.* Fauna d. Roth. Meer. no. 41; Finsch & Hartl. Vögel Ostafr. p. 160. no. 70.

a. ♂. Ain. July 6 (no. 1230).
b. ♂. Ain. July 6 (no. 1886).
c. ♂. Ain. July 6 (no. 182).
d. ♂. Waliko. August 3 (no. 778).
e. ♀. Waliko. August 4 (no. 532).
f. ♂. Gabena Weldt Gonfallon. August 7 (no. 1874).
g. ♀. Gabena Weldt Gonfallon. July 16 (no. 825).

[Iris brown; beak coral-red; legs and feet coral-red.

First procured by Mr. W. T. Blanford at Ailet, and afterwards by both of us from Ain to the Anseba river during July and August. Saw old birds carrying food in their beaks, but could not discover the nest. Note, a noisy chatter, in a rapid diminuendo. Insectivorous. I did not meet with this species anywhere else during my stay in Abyssinia.—*W. J.*]

38. Halcyon chloris (Bodd.).

Ceryle abyssinica, Licht. Nomencl. p. 67.
Alcedo collaris, Heugl. Syst. Uebers. p. 271 (note).
Halcyon chlorocephala, Faun. d. Roth. Meer. p. 21. no. 42, et p. 30.
—— *chloris,* Finsch & Hartl. Vögel Ostafr. p. 165. no. 73.

a. ♂. Zoulla. March 7 (no. 187).
b. ♀. Zoulla. March 7 (no. 118).

The specimens in Mr. Jesse's collection prove again that there is no difference between African and Indian specimens, as we have already pointed out (Ornith. Central-Polynesiens, p. 35, note).—*O. F.*

[Iris dark brown; beak, upper mandible black, lower one pearl-pink at base, tip black; legs and feet pinky grey.

Procured among the mangrove bushes on the shore of Annesley Bay. At that time

they were plentiful, but had disappeared in June. I never saw it elsewhere while in Abyssinia or Bogos. Procured a pair, male and female; the latter slightly paler in plumage, but moulting, had the appearance of being a younger bird.—*W. J.*]

39. Alcedo picta (Bodd.).

Alcedo cærulea, Rüpp. Syst. Uebers. p. 23. no. 93; Heugl. Syst. Uebers. no. 135.
Ispidina cyanotis, Brehm, Habesch, p. 210.
Alcedo picta, Finsch & Hartl. Vögel Ostafr. p. 171. no. 76.

a. ♂. Maragaz. July 29 (no. 601).
b. ♀. Maragaz. July 29.
c. ♂. Maragaz. July 30 (no. 1065).
d. ♂. Waliko. July 31.
e. Waliko. August 2 (no. 1003).
f. ♀. Waliko. August 4.
g. ♂. Gabena Weldt Gonfallon. August 7 (no. 1271).
h. ♀. Gabena Weldt Gonfallon. August 8 (no. 1945).
i. ♂. Bejook. July 14 (no. 1672).
k. ♂. Bejook. July 15
l. ♂. Bejook. July 15 (no. 1470).

[Iris brown; beak coral-red; legs and feet coral-red.

Very plentiful on the Anseba during July and August. Saw one on the Lebka, below Kokai, in August. Note not unlike that of the common brown Wren (*Troglodytes parvulus*). Insectivorous and very voracious; shot one with the legs of a large locust hanging outside the beak.—*W. J.*]

Fam. MEROPIDÆ.

40. Merops apiaster, Linn.

Merops apiaster, Rüpp. Syst. Uebers. p. 23. no. 95; Heugl. Syst. Uebers. no. 137; *id.* Fauna d. Roth. Meer. no. 44; Brehm, Habesch, p. 210. no. 33.

a. ♂. Taconda. April 21 (no. 103).
b. ♀. Taconda. April 21 (no. 426).

[Iris crimson; beak black; legs and feet black.

Shot and sent to me by a friend from the Taconda Pass. I myself neither obtained nor saw this bird, either in Abyssinia or the Bogos country. Contents of stomach, wasps.—*W. J.*]

41. Merops superciliosus, L.

Merops superciliosus, Rüpp. Syst. Uebers. p. 23. no. 96; Heugl. Syst. Uebers. no. 138.
—— *ægyptius*, Heugl. Fauna d. Roth. Meer. no. 46.

Merops savignyi, Brehm, Habesch, p. 210. no. 34.
—— *superciliosus*, Finsch, Journ. f. Orn. 1867, p. 239; Finsch & Hartl. Vögel Ostafr. p. 178. no. 79.

a. ♀. Koomaylee. March 22 (no. 125).

[Iris crimson; beak black; legs and feet brownish grey, toes black.

The only specimen I procured, though I saw others at the time. I never met with this species elsewhere during my stay in Abyssinia or Bogos.—*W. J.*]

42. Merops albicollis, Vieill.

Merops cuvieri, Heugl. Syst. Uebers. no. 139.
—— *albicollis*, Heugl. Fauna d. Roth. Meer. no. 45; Finsch & Hartl. Vögel Ostafr. p. 185. no. 82.

a. ♂. Koomaylee. June 5.
b. ♀. Koomaylee. June 5.
c. ♂. Rairo. August 13 (no. 791).
d. ♂. Rairo. August 13 (no. 787).
e. ♂. Rairo. August 13 (no. 1770).
f. ♂. Rairo. August 13 (no. 870).
g. ♂. Rairo. August 13 (no. 1002).
h. ♂. Rairo. August 13.
i. ♀. Rairo. August 13 (no. 84).
k. ♀. Ain. August 16 (no. 1382).

Specimens from North-east Africa agree in every respect with western and eastern ones.—*O. F.*

[Iris crimson; beak black; legs and feet yellowish grey.

Out of a series of ten of these birds, obtained at Rairo 13th August, Koomaylee 5th June, and Ain 16th August, I remarked that in six specimens the length of the upper mandible is $1\frac{3}{8}$ inch, and in the four others only $\frac{15}{16}$ of an inch, though in other measurements, such as the pinion, length of middle toe, &c., they coincide. Is this usual among the Meropidæ?—*W. J.*]

43. Merops viridissimus, Sws.

Merops ægyptius, Licht. (nec Forsk.) Verz. Doubl. p. 13; Kittlitz, Kupfert. t. 7. f. 1.
—— *viridis*, Rüpp. (nec Linn.) Syst. Uebers. p. 24. no. 97; Heugl. Syst. Uebers. no. 140.
—— *viridissimus*, Hartl. Westafr. p. 40.

a. ♂. Zoulla. June 6.
b. ♂. Zoulla. June 6.
c. ♂. Zoulla. June 6.
d. ♂. Zoulla. June 6.
e. ♀. Zoulla. June 6 (no. E).
f. Ain. July 7 (no. 1286).

Long. al.	Caud.	Culm.	Tars.	
3″ 3‴–3″ 5‴	2″ 3‴–2″ 5‴	9‴–11‴	$4\frac{1}{2}$‴–5‴	
3 4	2 5	$10\frac{1}{2}$–$11\frac{1}{2}$	5 . .	*viridis*. S. India.

All the specimens in Mr. Jesse's collection, killed in June and July, are young birds in moulting-plumage. The feathers on the back are in some specimens margined with dull blue, as well as the outer web of the quills and tail-feathers in other specimens; the chin and throat is in most of the specimens washed with yellow, the black jugular collar indicated only by some dark-greenish-margined feathers; the two middle elongated tail-feathers are wanting, and all only partially developed in the specimen *f*. Some specimens have the head and neck mixed with faded-fulvous-brownish feathers; the black stripe through the eye shows underneath more or less a narrow light blue margin.—*O. F.*

[Iris brown.

Out of five specimens procured at Zoulla in June, the one here noted, as also another not marked, had the iris brown; the rest were crimson. Possibly in birds of the year the iris does not reach its full colour. They were procured in the mangrove-belts by the shore: some had long tail-feathers; but the generality had not; they were all more or less moulting. I killed this species at Zoulla on my arrival at the end of February, though I have no skin of that date. Did not meet with it elsewhere.—*W. J.*]

44. Merops lafresnayei, Guér.

Merops lafresnayei, Guér. Rev. Zool. 1843, p. 322; *id.* in Ferret & Galinier, Voy. en Abyss. Atlas, t. 15.
—— *lefebvrii*, Des Murs.
—— *variegatus*, Kittl. Kupfert. t. 7. f. 3; Rüpp. Syst. Uebers. p. 24. no. 100; Heugl. Syst. Uebers. no. 143.
—— *lafresnayi*, Heugl. Fauna d. Roth. Meer. no. 48; Brehm, Habesch, p. 210. no. 35; Finsch & Hartl. Vögel Ostafr. p. 192 (Anm.).

a. ♂. Senafé. May 12 (no. 831).
b. ♂. Senafé. May 12 (no. 1216).
c. Sooroo. April 5 (no. 191).

[Iris crimson; beak black; legs and feet greyish stone-colour.

This Bee-eater was common up the pass from Sooroo to Senafé during April and May.—*W. J.*]

45. Merops minutus, Vieill.

Merops collaris, Kittl. Kupfert, t. 7. f. 2.
—— *erythropterus*, Rüpp. Syst. Uebers. p. 24. no. 99; Heugl. Syst. Uebers. no. 142; *id.* Fauna des Roth. Meer. no. 47.
—— *minutus*, Finsch & Hartl. Vögel. Ostafr. p. 188. no. 84.

a. ♂. Bejook. July 14 (no. 1524).
b. Bejook. July 13.

[Iris crimson; beak black; legs and feet black.

I procured only two specimens of this species at Bejook, on the Anseba, and did not observe it elsewhere on my trip.—*W. J.*]

Fam. UPUPIDÆ.

46. Upupa epops, L.

Upupa epops, Rüpp. Syst. Uebers. p. 27. no. 102; Heugl. Syst. Uebers. no. 145; *id.* Fauna d. Rothen Meer. no. 49; Finsch & Hartl. Vögel Ostafr. p. 195. no. 87.
? *Upupa senegalensis*?, Brehm, Habesch, p. 211. no. 37.

a. Koomaylee. June 5.
b. ♀. Between Ain and Monbar Harat-b'. August 16 (no. 49).
c. ♂. Rairo. August 13 (no. 25).
d. ♀. Rairo. August 13.

Von Heuglin met with our common Hoopoe only during the months of September and October on the Danakil coast of the Somali country, and asks "whether it may be a resident bird." The specimens in Mr. Jesse's collection answer this question. Having been shot in the beginning of June and in the middle of August, there cannot well be any doubt that the Hoopoe stays, perhaps in less numbers, all the year round in the Bogos country. It may be remarked that Mr. E. C. Taylor found the Hoopoe breeding in Egypt as early as the month of March.—*O. F.*

[Observed this bird in Koomaylee plain about the 11th and 12th of March. Procured, Koomaylee, June 5; Rairo, August 13; between Ain and Monbar Harat-b', August 16. Not seen elsewhere during my trip.—*W. J.*]

47. Irrisor erythrorynchus (Lath.).

Promerops erythrorhynchus, Rüpp. Syst. Uebers. p. 28. no. 103.
Irrisor erythrorhynchus, Heugl. Syst. Uebers. no. 146.
Irrisor, spec. nov.?, Heugl. Fauna d. Rothen Meer. no. 51.
Promerops erythrorhynchus, Brehm, Habesch, p. 211. no. 38; Finsch & Hartl. Vögel. Ostafr. p. 202. no. 89.

a. ♂. Kokai. July 12 (no. 1817).
b. ♂. Kokai. July 12 (no. 683).
c. ♀. Maragaz. July 27.
d. Maragaz. July 27.
e. ♂. Maragaz. July 29.

The collection of Mr. Jesse contains red- and black-billed specimens, the latter being most probably younger ones. Specimens from the different parts of Africa are not separable, but vary very much in coloration, shape of the bill, and size.—*O. F.*

[Iris brown; legs and feet coral-red.

The beaks of some of the specimens procured varied considerably, from black to nearly red, probably a difference of age. These birds are excessively noisy and active, climbing in all sorts of positions along the trunk and branches of the *Adansonia* hunting for insects; when frightened they fly off in a long string to the next tree. They have a peculiarly disagreeable smell, which I cannot well describe; it is not

unlike guano. Contents of stomach, small Coleoptera. Met with these birds only at Kokai and on the Anseba.—*W. J.*]

48. Irrisor aterrimus (Steph.).

Promerops pusillus, Sws. B. W. Afr. ii. p. 120.
Irrisor cyanomelas, Heugl. Journ. f. Orn. 1864, p. 263.
Rhinopomastes pusillus, Antinori, Catal. p. 32.
Irrisor aterrimus, Finsch & Hartl. Vögel Ostafr. p. 209. no. 92.

a. Senafé. May 13 (no. 1039).
b. Mohaber. July 9 (no. 1015).
c. Rairo. August 13 (no. 1086).

Not included in the lists of North-east-African birds by Dr. Rüppell, Von Heuglin, and Dr. Brehm, but already known from that part of Africa. Specimens from Sennahr are in the Berlin Museum; others from the interior, collected by Von Heuglin in Bongo, on the Bahr-el-ghasal, I examined also. For the Abyssinian coast lands, *I. aterrimus*, which has often been confounded with *I. cyanomelas*, Vieill., is new.—*O. F.*

[Iris brown; beak black; legs and feet horn-colour.

Three specimens procured. Senafé, May; Mohaber, July 9; Rairo, August 13.—*W. J.*]

Fam. PROMEROPIDÆ.

49. Nectarinia tacazziana (Stanl.).

Nectarinia tacazze (!), Rüpp. Neue Wirbelth. t. 31. f. 3; *id.* Syst. Uebers. p. 28. no. 108; Heugl. Syst. Uebers. no. 152.

a. ♂. Rayrayguddy. April 8 (no. 445).
b. ♂. Rayrayguddy. April 8.
c. ♂. Rayrayguddy. April 8.
d. ♀. Rayrayguddy. April 8 (no. 486).
e. ♂. Goongoona. May 7 (no. 1944).
f. ♂. Facado. May 8 (no. 1752).
g. ♀. Senafé. May 25.

[Iris brown; beak black; legs and feet black.

A series of seven specimens procured at the following places:—Rayrayguddy, April 8; Goongoona, May 7; Facada, May 8; Senafé, May 25. Never met by me elsewhere, either in Abyssinia or Bogos. Females scarce.—*W. J.*]

50. Nectarinia pulchella (L.).

Nectarinia pulchella, Rüpp. Syst. Uebers. p. 28. no. 107; Heugl. Syst. Uebers. no. 151; *id.* Journ. f. Orn. 1864, p. 261.

a. ♂. Waliko. August 4 (no. 507).
b. ♀. Waliko. July 4 (no. 508).

c. ♂. Bejook. July 4 (no. 442).
d. ♂. Bejook. July 15 (no. 1082).
e. ♂. Bejook. July 15 (no. 806).
f. ♀. Bejook. July 15 (no. 770).
g. ♂. Bejook. July 16 (no. 1202).
h. ♂. Bejook. July 16 (no. 1639).
i. ♂. Bejook. July 17 (no. 805).
j. ♀. Bejook. July 17 (no. 1966).

The specimens from north-east Africa agree with western ones. I saw this species also amongst a collection of Dr. v. Heuglin from Wau, on the Bahr-el-ghasal, in the interior. The Bogos country is a new locality for this species.—*O. F.*

[Eye black; beak black; legs and feet black.

Ten specimens in this series, among which are three females, were all procured on the river Anseba from July 4 to August 4. I only met with this beautiful little bird in this locality, and always near the river—that is to say, within a mile and a half. I did not even see it on the other side of the hills, at Mashalite, though not ten miles from the Anseba. It was plentiful.—*W. J.*]

51. Nectarinia metallica, Licht.

Nectarinia metallica, Hempr. & Ehrb. Symb. Phys. t. i.; Rüpp. Syst. Uebers. p. 28. no. 109; Heugl. Syst. Uebers. no. 153; *id.* Fauna d. Rothen Meer. no. 52; Finsch & Hartl. Vögel Ostafr. p. 214. no. 95.

a. ♂. Koomaylee. March 18 (no. 170).
b. ♂. Koomaylee. March 18 (no. 134).
c. ♂. Koomaylee. March 18 (no. 179).
d. ♀. Koomaylee. May 27 (no. 568).

[Eye black; beak black; legs and feet black.

Three male specimens procured about two miles from the plain of Koomaylee, up in the hills, in quite a cool temperature, surrounded by plenty of verdure, the shrubs in blossom, I should say full 1200 feet above the sea; this was in March. On my return at the end of May they were plentiful in the plain at Koomaylee, but in very bad plumage, the males having all lost the long tail-feathers. At this period I obtained the female; these being plentiful, I concluded the breeding-season was over. I also found specimens in the female plumage with signs of the bright mature plumage. I did not meet with this species in the Bogos country, nor on the highland plateau of Senafé.—*W. J.*]

52. Nectarinia affinis, Rüpp.

Nectarinia affinis, Rüpp. Neue Wirbelth. t. 31. f. 1; *id.* Syst. Uebers. p. 28. no. 110; Heugl. Syst. Uebers. no. 156; *id.* Fauna des Roth. Meer. no. 55; Brehm, Habesch, p. 211. no. 41; Finsch & Hartl. Vögel Ostafr. p. 224 (Anm.).

a. ♂. Undel Wells. May 27.
b. ♂. Undel Wells. May 27.
c. ♂. Rayrayguddy. May 27.
d. ♂. Rayrayguddy. April 8.
e. ♂. Facado. May 2 (no. 1911).

[Iris black; beak black; legs and feet black.

Procured from Undel Wells to Facado; plentiful about Rayrayguddy. Did not see it during the trip to Bogos. From April 8 to May 27.—*W. J.*]

53. Nectarinia cruentata.

Nectarinia cruentata, Rüpp. Syst. Uebers. t. 9. p. 28. no. 113; Heugl. Syst. Uebers. no. 159; Brehm, Habesch, p. 211. no. 43.

a. ♂. Senafé. May.
b. ♀. Kokai. July 13 (no. 627).
c. ♂. Bejook. July 13 (no. 1182).
d. ♂. Bejook. July 16 (no. 1196).
e. ♂. Gabena Weldt Gonfallon. August 6 (no. 1983).

[Eye black; beak black; legs black.

Rare about the valleys near Senafé in April and May. More common, though not plentiful, during July and August between Kokai and the river Anseba. One female procured.—*W. J.*]

54. Nectarinia habessinica.

Nectarinia habessinica, Hempr. & Ehrb. Symb. Phys. Zool. i. *Aves* (1828), t. iv.
—— *purpurata* (Ill.), Kittl. Kupfert. t. 28. f. 1.
Cinnyris gularis, Rüpp. Neue Wirbelth. p. 88, t. 31. f. 2 (♂ jun.).
Nectarinia gularis et *habyssinica*, Rüpp. Syst. Uebers. p. 28. no. 111 et 112; Heugl. Syst. Uebers. no. 157 et 158; Brehm, Habesch, p. 211. no. 40; Finsch & Hartl. Vögel Ostafr. p. 221. no. 100.

a, b. ♂. Koomaylee. March 18 (no. 149).
c. ♂. Koomaylee. March 18 (no. 189).
d. ♂. Koomaylee. March 18 (no. 157).
e. ♂. Koomaylee. March 19.
f. ♂. Koomaylee. (no. 153).
g. ♂. Sahati. June 23.
h. ♂. Waliko. June 24 (no. 1242).
i. ♂. Maragaz. July 29 (no. 1060).
k. ♂. Rairo. August 13 (no. 57).

All the specimens are males in full dress. The steel-blue lustre on the rump is

visible only in a few specimens; most of them have the rump of the same metallic green as the other upper parts of the body.

Long. al.	Caud.	Rostr.
2″ 5‴–2″ 7½‴	1″ 6½‴–1″ 9‴	8‴–9‴.—*O. F.*

[Eye black; beak black; legs and feet black.

The first four specimens were procured in the same locality and at the same date as *Nectarinia metallica*; plentiful and well distributed. Subsequently specimens were obtained at Sahati, June 23; Waliko, June 24; Maragaz, July 29; and Rairo, August 13. Female seen, and dull in plumage like those of other species.—*W. J.*]

55. Nectarinia jardinei, Verr.

Nectarinia jardinei, Hartl. Syst. Orn. W. Afr. p. 47; Finsch & Hartl. Vögel Ostafr. p. 218. no. 97, tab. ii. f. 1.

a. ♂. Senafé. May 22 (no. 1280).
b. ♂. Senafé. May 27 (no. 498).

Long. al.	Caud.	Culm.	Tars.	
2″ 5‴–2″ 7‴	1″ 8‴–1″ 9‴	8‴	7½‴	. . . Senafé.
2 1 –2 3	1 5 –1 7	6½–7‴	6½ –7‴	. . . Angola, Zanzibar.

The discovery of this species, which was only known from West and East Africa, is a very interesting contribution to the avifauna of North-east Africa. A careful comparison with specimens from Angola and Zanzibar shows not the slightest difference in coloration, but a considerably larger size. I hesitate to make a new species upon this character alone, fearing a larger series would perhaps offer forms intermediate in size, which would not permit the two species to be distinguished with certainty. If further researches prove that the differences in size are permanent, I propose to call the North-eastern form *Nectarinia osiris.*—*O. F.*

[Eye black; beak black; legs and feet black.

Two specimens, both male, procured at Senafé, were all I ever saw either in Abyssinia or Bogos. These were killed in a valley some 1200 feet below Senafé, on the western side.—*W. J.*]

Fam. CERTHIADÆ.

Troglodytinæ.

56. Oligocercus rufescens (Vieill.).

Troglodytes microurus, Rüpp. Neue Wirbelth. t. 41.

Oligura microura, Rüpp. Syst. Uebers. p. 56. no. 115; Heugl. Syst. Uebers. no. 161; *id.* Fauna des Roth. Meer. no. 56.

Oligocercus rufescens (ex N. O. Afr.), Finsch & Hartl. Vögel Ostafr. p. 227. no. 104.

a. ♂. Waliko. July 21 (no. 1512).

b. ♂. Waliko. August 4 (no. 436).
c. ♂. Waliko. August 4 (no. 1214).

Long. al.	Caud.	Culm.	Tars.	
2″–2″ 1½‴	8‴–10‴	4½‴	8‴	
2 1	10	5½	10	. . . Cape.

The north-eastern form seems not to be separable from the southern, although there are certain slight differences. Levaillant's figure (t. 135) is incorrect, showing the bill 7½‴ long.—*O. F.*

[Iris brown; legs and feet pinkish.

Three specimens, all procured at Waliko. I observed this species on the Lebka, above Gelamet, and on the Anseba, nowhere else.—*W. J.*]

Fam. LUSCINIADÆ.

57. Drymoica rufifrons, Rüpp.

Prinia rufifrons, Rüpp. Neue Wirbelth. t. 41. f. 2; *id.* Syst. Uebers. p. 56. no. 121; Heugl. Syst. Uebers. no. 168; *id.* Fauna d. Roth. Meer. no. 61; Brehm, Habesch, p. 212. no. 44; Finsch & Hartl. Vögel Ostafr. p. 234. no. 109.

a. ♂. Koomaylee. May.
b. ♂. Rairo. August 13.
c. ♀. Rairo. August 13 (no. 94).
d. ♀. Rairo. August 14 (no. 97).
e. ♀. Rairo. August 14 (no. 54).

[Iris pale burnt-sienna.

This species was common about Koomaylee in June; four specimens procured at Rairo, one of which was a bird of the year; not observed by me elsewhere.—*W. J.*]

58. Drymoica erythrogenys, Rüpp.

Syst. Uebers. p. 56. no. 125, t. 12; Heugl. Syst. Uebers. no. 165.

a. ♀. Goon Goona. May 8 (no. 142).

A closely allied species is *D. marginalis*, Heugl. (Syst. Uebers. no. 175).—*O. F.*

[Iris light brown; beak horn-colour; legs and feet dirty yellowish brown.

I do not remember meeting with this species elsewhere.—*W. J.*]

59. Camaroptera brevicaudata (Rüpp.).

Sylvia brevicaudata, Rüpp. Atlas, t. 35 (pess.).
Ficedula brevicaudata, Rüpp. Syst. Uebers. p. 57. no. 149.
Orthotomus clamans et *Syncopta brevicaudata*, Heugl. Syst. Uebers. no. 197 et 196.
Camaroptera brevicaudata, Brehm, Habesch, p. 212. no. 45; Finsch & Hartl. Vögel Ostafr. p. 241. no. 112.

a. ♀. Undel Wells. May 27.
b. ♂. Maragaz. July 27 (no. 1942).

c. Maragaz. July 27 (no. 1832).
d. ♂. Waliko. July 23 (no. 1786).
e. Waliko. July 27 (no. 1755).
f. Gabena Weldt Gonfallon. August 8 (no. 1259).
g. ♂. Bejook. July 13 (no. 645).

Long. al.	Caud.	Culm.	Tars.
2″–2½″	1″ 2‴–1″ 5‴	5‴–5½‴	9½‴–10½‴

This species occurs also in South (*C. olivacea*, Sundev.) and West Africa (*C. tincta*, Cass.). The figure in Cretzschmar's 'Atlas' is incorrect, and not to be recognized. I have examined Rüppell's types in the Senckenberg Museum.—*O. F.*

[Iris light brown; legs and feet yellow.

This species is well distributed, having been procured at Undel Wells, May 27, and all along the Anseba, from Bejook to Maragaz. Though a very noisy little bird, it was difficult to get, as it always kept in the thickest bushes. Its voice is so powerful that it was some time before I recognized the performer; the note is very harsh.

Contents of stomach, minute coleoptera.—*W. J.*]

60. Phyllopneuste umbrovirens, Rüpp.

Ficedula umbrovirens, Rüpp. Neue Wirbelth. p. 112; *id.* Syst. Uebers. p. 57. no. 148; Heugl. Syst. Uebers. no. 194; Brehm, Habesch, p. 212. no. 46.

a. ♀. Undel Wells. May 27.

[I have no recollection of meeting with this species elsewhere, nor have I any further particulars.—*W. J.*]

61. Hypolais elæica (Linderm.).

Salicaria elæica, Linderm. Isis, 1843, p. 342.
Ficedula ambigua, Schleg. Krit. Uebers. (1844) p. 53.
Hypolais pallida, Gerbe, Rev. & Mag. Zool. (1852) p. 174. t. iv.
—— *cinerascens*, De Selys.
Sylvia preglii, Frauenfeld.
Hypolais arigonis, A. Brehm, Thierleben, p. 865.

a. ♀. Gelamet. August 11.
b. ♀. Gelamet. August 11 (no. 44).
c. ♂. Rairo. August 13 (no. 19).

Long. al.	Caud.	Culm.	Lat. max. basin.	Tars.	
2″ 6‴	2″ 0‴	5½‴	2¼‴	9‴	. . . *a.*
2 10	2 3	6	2½	11	. . . *b.*
2 8	—	6	2½	10	. . . *c.*
2 7	2 1	5½	2½	10	. . . Spain.

The specimens in Mr. Jesse's collection agree with specimens from Greece and Spain; the latter, collected by Dr. A. Brehm at Valencia, have the bill a little more

depressed and broader (*Hypolais megarhyncha*, Brehm). Between *H. elœica* and *H. pallida* I cannot find a real difference; the colouring varies between a greyish- and pale brownish-olive; in the shape of the bill there are also slight differences. I have compared specimens from Algiers and Dalmatia—the latter, collected in the neighbourhood of Cattaro, being the type of *Sylvia preglii*, Frauenfeld.

Whether *Curruca pallida*, Hempr. & Ehrb., from Egypt and Nubia, is this species or *Calamoherpe arundinacea*, one cannot say, because the description given by Hemprich and Ehrenberg (Symb. Phys. 1828, fol. bb) is too short to recognize the species exactly. —*O. F.*

[Only met with at Gelamet and Rairo.—*W. J.*]

62. Hypolais olivetorum (Strickl.).

Temm. Man. d'Orn. iv. p. 611; Gould, B. of Eur. pl. 109.
Salicaria olivetorum, Schleg. Rev. Crit. p. 56.

♂. Amba. 21st August.

Apparently a young bird, having the feathers on the back and rump faintly margined with pale brown, like the outer webs of the quills; the under parts white, strongly washed with pale ochre on the sides; otherwise similar to an old male from Greece.

Long. al.	Caud.	Culm.	Tars.	Dig. int.	
3″ 2‴	2″ 8‴	6‴	11‴	6½‴	
3 3	2 6	6	11	6 . . .	Greece.

Not included in the lists of North-east African birds by Drs. Rüppell, Von Heuglin, and Brehm, therefore an interesting addition to the avifauna of this part of Africa, and a valuable contribution to the geographical distribution of the species.

Von Heuglin (Syst. Uebers. p. 277) is certainly wrong in thinking that *Sylvia crassirostris*, Rüpp., may be identical with the present bird, the former species having the outermost tail-feather white.—*O. F.*

[The only specimen procured. I saw one other the same day.—*W. J.*]

63. Sylvia cinerea, Briss.

Rüpp. Syst. Uebers. p. 57. no. 133; Heugl. Syst. Uebers. no. 210; *id.* Fauna d. Roth. Meer. no. 71.

a. Mai Wallet. August 18 (no. 27).

Von Heuglin observed this species also in the month of August on the Island of Dahalak.—*O. F.*

[Iris grey.

The only specimen procured.—*W. J.*]

64. Aëdon galactodes (Temm.).

Aëdon galactodes, Sclat. Contrib. Ornith. 1852, p. 125.
—— *minor*, Cab. Mus. Hein. i. p. 39.

Aëdon galactodes et *minor*, Heugl. Syst. Uebers. nos. 218, 219.
—— *familiaris*, Heugl. Fauna d. Roth. Meer. no. 67.
—— *minor*, Brehm, Habesch, p. 212. no. 48.
—— *galactodes*, Finsch & Hartl. Vögel Ostafr. p. 246. no. 115.

a. ♂. Koomaylee. April 5 (no. 169).
b. Koomaylee. June 5.
c. ♂. Undel Wells. May 28.
d. ♂. River Amba. August 19.
e. ♀. River Amba. August 20.
f. ♂. Ain. July 6.
g. ♂. Bejook. August 18 (no. 23).

The fine series in the collection of Mr. Jesse proves that there is no difference between Abyssinian and European specimens. Cabanis's *A. minor*, said to be the eastern form of *A. galactodes*, distinguished by smaller size, is by no means separable. Dr. Brehm is therefore wrong in maintaining the Abyssinian *A. galactodes* to be permanently smaller. The black marking across the tail-feathers varies much. A male (*c*) has a broad cross band on the tail-feathers, the two middle ones pointed with black, and agrees in every respect with the female (*e*). Another male wants the black apical spot on the two middle tail-feathers; in another specimen the black cross band is indistinct and restricted to the inner web.

Long. al.	Caud.	Culm.	Tars.	
2″ 10‴–3″ 2‴	2″ 3‴–2″ 7‴	6‴	11‴–12‴	. . . Abyssinia.
3 –3 2	2 2 –2 7	6–6½‴	10 –12	. . . Europe.—*O. F.*

[Seven specimens, procured at Koomaylee, Undel, Ain, Bejook, and Amba, show this species to be well distributed from the lowlands to the highlands, though more plentiful in the former.—*W. J.*]

65. Cercotrichas erythroptera (Gmel.).

Cercotrichas erythropterus, Rüpp. Syst. Uebers. p. 60. no. 195; Heugl. Syst. Uebers. no. 278; *id.* Faun. des Roth. Meer. no. 94; Brehm, Habesch, p. 214. no. 67; Finsch & Hartl. Vögel Ostafr. p. 250. no. 116.

a. Zoulla. May.
b. ♂. Koomaylee. May.
c. ♂. River Amba. August 21.
d. ♀. Between Gelamet and Kokai. August 10 (no. 45).
e. ♂. Bejook. July 16 (no. 1777).

[This species I observed at Zoulla in March, and procured them in May; Bejook, July 16; Gelamet, August 10; Amba, August 21. Plentiful in the lowlands. I only saw one other specimen on the Anseba besides the one procured at Bejook.—*W. J.*]

66. Thamnolæa albiscapulata, Rüpp.

Thamnolæa albiscapulata, Rüpp. Neue Wirbelth. t. 26. f. 1; *id.* Syst. Uebers. p. 58. no. 168; Heugl. Syst. Uebers. no. 250; Brehm, Habesch, p. 213. no. 53.
Thamnolæa casiogastra, Bp. Compt. Rend. xxxviii. p. 7 (1854).

a. ♂. Koomaylee. March 22 (no. 145).
b. Sooroo. May.

Long. al.	Caud.	Culm.	Tars.
4″ 6‴	3″ 1‴	7‴	13‴

This species has often been erroneously confounded with the southern *Th. cinnamomeiventris*, Lafr. (Rev. Zool. 1836, t. 56; *Petrocincla montana*, Licht. Nomencl. 1854, p. 26), a very nearly allied but different species. The north-eastern *Th. albiscapulata* is distinguished by having the upper and under tail-coverts black, the latter being only cinnamomeous at the base, whereas in *Th. cinnamomeiventris* these parts are uniform cinnamon, like the rump and under surface. Mr. Layard and Mr. Gurney have overlooked these differences, and make the southern bird the same as the north-eastern. *Saxicola albiscapulata* (Layard, B. S. Afr. p. 106), *Thamnobia ptymatura* (Gurney, Ibis, 1863, p. 328), and *Th. albiscapulata* (Gurney, Ibis, 1868, p. 157) belong therefore as synonyms to *Th. cinnamomeiventris.* I have compared both species carefully in the Berlin and Frankfort Museums.

Thamnolæa casiogastra, from Abyssinia, seems to be, from the short description of Bonaparte, nothing more than the female of *Th. albiscapulata*, which differs from the male only in wanting the white patch on the shoulders.—*O. F.*

[Iris dark brown; beak black; legs and feet black.

This specimen was shot in the Sooroo Pass, seven miles higher up the road to Senafé than Koomaylee. I procured another specimen at Sooroo in May. It was tolerably plentiful about this locality, but I did not come across it anywhere else during my stay in Abyssinia or Bogos.—*W. J.*]

67. Thamnolæa melæna (Rüpp.).

Saxicola melæna, Rüpp. Neue Wirbelth. t. 28. f. 2; *id.* Syst. Uebers. p. 58. no. 154; Heugl. Syst. Uebers. no. 230.

a. ♂. Senafé. April 24 (no. 137).

Agrees very well with the description and figure given by Dr. Rüppell, who collected a few specimens in the Abyssinian province Agame. Heuglin observed it in the mountains of Simehn and Woggara. A comparison with *Thamnolæa æthiops*, Licht. (Cab. Mus. Hein. p. 8; Hartl. W. Afr. p. 65), from West and South Africa, would probably prove the identity of the two species.—*O. F.*

[Iris brown; beak black; legs and feet black.

The only specimen procured; two others seen near Senafé.—*W. J.*]

68. Saxicola œnanthe (L.).

Saxicola œnanthe, Rüpp. Syst. Uebers. p. 58. no. 161; Heugl. Syst. Uebers. no. 236; *id.* Fauna d. Roth. Meer. no. 84; Brehm, Habesch, p. 212. no. 49.

a. ♂. Senafé. April 24 (no. 104).

[Iris brown; beak black; legs and feet black.
The only specimen procured.—*W. J.*]

69. Saxicola isabellina, Rüpp. (*nec* Temm.).

Saxicola isabellina, Rüpp. Atlas, t. 34. f. 6; *id.* Syst. Uebers. p. 58. no. 159; Heugl. Syst. Uebers. no. 233; *id.* Fauna des Roth. Meer. no. 89; Brehm, Habesch, p. 212. no. 50; Finsch & Hartl. Vögel Ostafr. p. 252. no. 118.

a. ♀. Zoulla. March 12 (no. 127).

Long. al.	Caud.	Culm.	Tars.
3″ 8‴	2″	6‴	13½‴

There is no difference between specimens from Africa and Western Asia (*S. saltatrix*, Ménétr.).—*O. F.*

[Eye, beak, legs and feet, black.
Neither observed nor procured elsewhere. Rather plentiful about Zoulla in March. Not seen in May and June, nor at Massuah in August.—*W. J.*]

70. Saxicola stapazina (L.).

Saxicola stapazina, Rüpp. Syst. Uebers. p. 58. no. 162; Heugl. Syst. Uebers. no. 237; Sclat. Contrib. to Ornith. 1852, p. 125.

♂. Gelamet. August 11 (no. 51).

A young bird, in moulting-plumage, similar to the female; but the head and upper parts olive-brown, not so bright ferruginous as in the female, the light supercilium indistinct, the ferruginous margins on the quills and quill-coverts rather narrow and paler.

Long. al.	Caud.	Culm.	Tars.
3″ 3‴	2″ 1‴	5½‴	10‴

The rediscovery of this species in the Abyssinian coastlands is interesting. It had been hitherto only once obtained, by Mr. Daubeny, who collected the species near Massowa. Von Heuglin includes this species also in his list of the birds of the Red Sea (Ibis, 1859, p. 341) as being observed on the Somali and Danakil coasts and in Southern Arabia, but says, in a later paper on that subject (Peterm. Geograph. Mittheil. 1861, p. 21), "*S. stapazina* and *S. aurita*, which are common in the Nile region, I have not seen along the shores of the Red Sea."—*O. F.*

[No notes on this species.—*W. J.*]

71. Saxicola lugubris, Rüpp.

Saxicola lugubris, Rüpp. Neue Wirbelth. p. 77, t. 28. f. 1.; *id.* Syst. Uebers. p. 58. no. 153; Heugl. Syst. Uebers. no. 229; Brehm, Habesch, p. 212. no. 51.

a. ♂. Rayrayguddy. May 27.
b. ♂. Senafé. April 25 (no. 451).

A beautiful species; the old male accurately figured by Dr. Rüppell.—*O. F.*

[Iris brown; beak black; legs and feet black.

Only two specimens procured; one at Rayrayguddy, May 27, 1868.—*W. J.*]

72. Saxicola melanura, Rüpp.

Saxicola melanura, Rüpp. in Temm. Pl. Col. 257; *id.* Syst. Uebers. p. 58. no. 158.
Pratincola melanura, Heugl. Syst. Uebers. no. 245; *id.* Fauna des Roth. Meer. no. 90.
Cercomela asthenia, Bp.
Saxicola melanura, Brehm, Habesch, p. 213. no. 52; Finsch & Hartl. Vögel Ostafr. p. 257. no. 120.

a. Undel Wells. May 5.
b. R. Amba. August 18 (no. 21).
c. ♀. R. Amba. August 19.
d. ♂. R. Amba. August 21.

The sexes are similar.

Long. al.	Caud.	Culm.	Tars.
2″ 11‴–3″ 1‴	2″–2″ 3‴	5‴–5½‴	9½‴–10‴—*O. F.*

[Plentiful in the lowlands in August, has a peculiar habit of spreading out its tail in the form of a fan; *Cercotrichas erythroptera* and *Aëdon galactodes* also have this peculiarity.—*W. J.*]

73. Thamnobia albifrons (Rüpp.).

Saxicola albifrons, Rüpp. Neue Wirbelth. 1835, p. 78; *id.* Syst. Uebers. p. 58. no. 155, t. 17.
—— *frontalis*, Sw. W. Afr. ii. (1837) p. 46.
—— *albifrons*, Heugl. Syst. Uebers. no. 231.
Thamnobia frontalis, Hartl. W. Afr. p. 68.

a. ♂. Bejook. July 13 (no. 1765).
b. ♀. Bejook. July 13 (no. 1273).

The female has no white on the forehead.—*O. F.*

[Iris brown.

The only two specimens procured or observed, as well as I can recollect: both shot on the same day, and male and female.—*W. J.*]

74. Ruticilla phœnicura (L.).

Ruticilla phœnicura, Rüpp. Syst. Uebers. p. 57. no. 142; Heugl. Syst. Uebers. no. 224; *id.* Fauna d. Roth. Meer. no. 78; Brehm, Habesch, p. 213. no. 56.

a. ♂. Senafé. April 25 (no. 402).

Long. al.	Caud.	Culm.	Tars.	
2″ 10‴	2″ 1‴	$4\frac{1}{2}$‴	9‴	
2 10	2	$4\frac{3}{4}$	$9\frac{1}{2}$	. . . (*R. pectoralis*, Heugl.)
2 11	2	$4\frac{1}{4}$	10	. . . Germany.

The specimen in Mr. Jesse's collection is an old male, and agrees exactly with the figure given by Naumann (tab. 79. f. 1). Heuglin's *R. pectoralis* (Journ. f. Ornith. 1863, p. 165), of which I have inspected the type specimens from the Bahr-el-ghasal, is nothing more than our *R. phœnicura*. The male described by v. Heuglin has the black feathers on the throat and breast margined with white, as is often the case with specimens killed in the spring in Europe.—*O. F.*

[Iris brown; beak black; legs and feet black.

Common about Senafé and down the Sooroo Pass.—*W. J.*]

75. Parus leucomelas, Rüpp.

Parus leucomelas, Neue Wirbelth. t. 37. f. 2.
—— *leucopterus*, Sws. B. W. Afr. ii. p. 42.
—— *leucomelas*, Rüpp. Syst. Uebers. p. 59. no. 170; Heugl. Syst. Uebers. no. 252.

a. ♂. Undel Wells. April 7 (no. 412).
b. ♂. Rayrayguddy. May 27.
c. ♂. Kokai. July 12 (no. 1980).
d. ♂. Kokai. July 12 (no. 1027).
e. ♂. Between Kokai and Gelamet. August 10 (no. 42).

Long. al.	Caud.	Culm.
2″ 11‴–3″ 1‴	2″ 4‴	4‴–$4\frac{1}{2}$‴.—*O. F.*

[Eye, beak, legs and, feet black.

Not very plentiful anywhere where I passed, except near Kokai, where I fell in with a family and shot four. Did not observe this species in the low plains.—*W. J.*]

76. Parus leuconotus, Guér.

Parus leuconotus, Guérin, Rev. Zool. 1843, p. 162; *id.* in Ferret & Galinier, Voy. Abyss. Atlas, t. 9. f. 1.
—— *dorsatus*, Rüpp. Syst. Uebers. p. 59. no. 171, t. 18; Heugl. Syst. Uebers. no. 253.

a. ♀. Senafé. April 27 (no. 128).
b. ♂. Goon-Goona. May 9 (no. 172).

Both sexes are alike.—*O. F.*

[Iris brown; beak black; legs and feet black.

I only procured one other specimen of this species, a male, at Goongoona, 9th May, and never saw it again.—*W. J.*]

77. Zosterops abyssinica, Guér.

Zosterops abyssinica, Guér. Rev. Zool. 1843, p. 162; *id.* in Ferret et Galinier, Voy. en Abyss. t. 9. f. 3.
—— *madagascariensis*, Rüpp. Syst. Uebers. p. 57. no. 150; Heugl. Syst. Uebers. no. 199.

a. ♀. Rairo. August 13 (no. 87).

Long. al.	Caud.	Culm.	Tars.	
1″ 11‴	1″ 5‴	3‴	7‴ . . .	Abyssinia.
2 2	1 8½	3¾	7½ . . .	South Africa. (*Z. sundevallii.*)

The southern representative is *Z. sundevallii*, Hartl. (*Z. lateralis*, Sund. *nec* Lath.), distinguished by larger size, the uniform dirty greyish white under surface, without having the sides washed with fulvous, and wanting the yellow superciliary stripe. —*O. F.*

[Iris pale burnt-sienna.

I unfortunately only procured this one specimen, having confounded it with *Camaroptera brevicaudata*. I did not shoot any others.—*W. J.*]

78. Motacilla flava, L.

Var. *melanocephala*, Licht.

Motacilla flava, Rüpp. Atlas, t. 33 *b*; *id.* Syst. Uebers. p. 59. no. 178; Heugl. Syst. Uebers. no. 260.
Budytes melanocephala, atricapilla, cinereocapilla, campestris, et *flava*, Brehm, Habesch, pp. 214, 215, nos. 59–63.
Motacilla flava, Finsch & Hartl. Vögel Ostafr. p. 268. no. 123.

a. ♂. Senafé. April 24 (no. 491).
b. ♂. Senafé. April 24 (no. 136).
c. ♀. Senafé. April 24 (no. 131).
d. ♀. Senafé. April 25 (no. 499).
e. ♂. Amba. August 25.

The old males, with the black cap, without a light supercilium, agree with the figure given by Rüppell, which, however, is incorrect in representing the four outer tail-feathers on each side white.

This variety occurs also in Scandinavia, India, and South Europe. The females are not distinguishable from our common ones. The specimen (*e*) from Amba in the Bogos has been apparently bred in that country, being in first plumage.—*O. F.*

[Iris brown; beak horn-colour; legs and feet horn-colour.

I observed this species very common about Zoulla and Koomaylee in March occupied in catching flies about the dead carcasses; at Amba, on the 25th of August, I procured a specimen (a young male) minus any yellow.—*W. J.*]

79. Anthus pratensis (L.).

Anthus cecilii, Savign., Rüpp. Syst. Uebers. p. 59. no. 181.
—— *cervinus*, Heugl. Syst. Uebers. no. 263; *id.* Fauna d. Roth. Meer. no. 99.

a. ♂. Senafé. April 25 (no. 159).

The specimen has the chin and throat pale rose-coloured, washed with ferruginous, like the male in the spring figured by Naumann (Vög. Deutschl. t. 85. f. 1).—*O. F.*

[Iris brown; beak horn-colour; legs and feet very light brown.

The only specimen procured during my stay either in Abyssinia or Bogos.—*W. J.*]

80. Anthus sordidus, Rüpp.

Anthus sordidus, Rüpp. Neue Wirbelth. p. 103, t. 39. f. 1; Syst. Uebers. p. 59. no. 184; Heugl. Syst. Uebers. no. 266.

? ♂. Bejook. July 16 (no. 794).
Waliko. July 21 (no. 1571).

The only description of this rare species by Rüppell is not correct in every respect, and it will therefore be useful to give another.

All the upper parts dark earth-brown, each feather with a somewhat lighter margin; primaries and secondaries dark umber-brown, a little darker than the back; the outer web very narrowly margined with earth-brown, uniform on the inner web, without paler margins: quill-coverts margined on the outer web like the remiges, but broader; from the nostrils to the temporal a narrow ochre whitish supercilium; sides of the head and the body beneath pale brownish fulvous, darkest on the breast and sides; chin more whitish; under quill-coverts brownish; tail-feathers dark blackish brown, the outermost on the outer web and the apical third of the inner web pale brownish white; the second tail-feather only with a small brownish white apical spot on the inner web; under surface of wings greyish brown.

Bill horn-brown, the mandible on the basal half pale yellowish; legs pale yellowish brown.

This specimen (no. 1571) agrees very well with the figure given by Rüppell.

The other specimen in Mr. Jesse's collection (no. 794) is similar to the one above described, but shows on the feathers of the throat and breast very narrow dark-brown shaft-stripes, also some on the feathers of the sides.

Long. tota.	Al.	Caud.	Culm.	Tars.	Dig.int.	Dig.post.	Cum ung.	
c. $6\frac{1}{2}''$	$3''\ 7'''$	$2''\ 8'''$	$6\frac{1}{2}'''$	$12'''$	$7'''$	$4'''$	$8'''$	
—	3 9	2 9	6	$11\frac{1}{2}$	7	$3\frac{1}{2}$	7	
—	3 6	2 7	6	12	6	4	4	*A. gouldi.* Casamanse.

About this species there is some confusion. Bonaparte, in uniting *A. gouldi*, Fraser, with *A. sordidus*, is, I believe, wrong. A specimen of *A. gouldi*, from the Casamanse, in the Bremen collection, is distinguished by the distinct dark-brown pear-shaped spots on the throat (jugulum), the dark-brown mystacal stripe, and the pale rusty margin on the basal portion of the inner web of the remiges; the fulvous colour of the under parts is also brighter, especially on the under tail-coverts. A specimen from the Bahr-el-ghazal in v. Heuglin's collection (s. n. *A. mystacalis*) agrees with the West-African specimen. The Indian *Agrodroma sordida* of Jerdon (B. of Ind. ii. p. 236), which is

mentioned in von Pelzeln's paper on the Himalayan and Thibet Birds collected by Dr. Stoliczka (Journ. f. Ornith. 1868, p. 30; Ibis, 1868, p. 312), is an allied, but certainly not the same, species. A specimen from Kotegurh, in the north-west Himalaya, collected by Dr. Stoliczka and procured from von Pelzeln (s. n. *A. sordidus*, Rüpp.), is at once distinguished by having the primaries narrow, the secondaries and quill-coverts broad, margined with ochre-fulvous on the outer web; the outermost tail-feather is, except the black basal half of the inner web, of the same colour, the second tail-feather has a broad fulvous apical spot running on both webs; the under surface is light fulvous with some obsolete dark blotches on the throat. This Indian species, not being the *A. sordidus* of Rüppell, merits a new name. I propose to call it *Anthus jerdoni*.

Guérin, in the Zoology of the 'Voyage en Abyssinie,' by Ferret et Galinier, p. 228, describes a specimen of *A. sordidus* which has on the breast some dark striæ, like the specimen no. 794. He says, that species is not rare at the Cape of Good Hope; but I could never find any reference to its existence in that locality.—*O. F.*

[Iris brown; beak pink flesh-colour, the upper mandible somewhat darker; legs and feet pink flesh-colour.

I only procured one other specimen at Waliko. This bird perches on trees.—*W. J.*]

Fam. TURDIDÆ.

81. Turdus simensis, Rüpp.

Turdus simensis, Rüpp. Neue Wirbelth. t. 29. f. 1; *id.* Syst. Uebers. p. 60. no. 190; Brehm, Habesch. p. 214. no. 65.

a. ♂. Taconda. April 21st, 1868 (no. 417).

b, c, d. ♀. Taconda. April 21st, 1868 (nos. 408, 414, 492).

Long. al.	Caud.	Culm.	Tars.	
4″ 8‴–5″ 0‴	2″ 4‴–2″ 5‴	9‴–10‴	16 ‴	. . . Abyssinia.
4 10 –4 11	2 1	10 0	14½ –16‴	. . . South Africa.

Prince Bonaparte and Dr. Hartlaub unite this species, as the young bird, with *T. strepitans*, Smith (*T. crassirostris*, Licht.)—but erroneously, as it is always to be distinguished by having the superciliary stripe, sides of head, breast, and sides of the belly strongly tinged with cinnamon fulvous, instead of white, washed faintly with pale ochraceous. Otherwise both species are similar.

The *T. simensis* from Sierra Leone, mentioned by Professor Sundevall (Œfvers. Akad. Förh. 1849, p. 157), belongs to the true *T. strepitans*, which is therefore not restricted to the south.—*O. F.*

[Iris brown; beak—upper mandible blackish brown, lower one yellowish; legs and feet brown.

I never saw this bird alive; the four specimens in my collection were sent me, *in the flesh*, by a friend who shot them in the Taconda Pass.—*W. J.*]

82. Turdus pelios, Bp.

Turdus pelios, Bonap. Consp. Av. i. p. 273.
—— *icterorhynchus*, P. v. Würtemb.; Heugl. Syst. Uebers. no. 275.
—— *pelios*, Hartl. W. Afr. p. 75.

a. ♂. Waliko. July 22nd (no. 1184).
b. ♂. Waliko. August 3rd (no. 1446).
c. ♂. Gabena Weldt Gonfallon. August 6th, 1868 (no. 643).

Long. al.	Caud.	Culm.	Tars.	
4″ 2‴	3″ 2‴	8‴	14‴	Abyssinia.
4 2	3 6	7	14½	N.E. Africa.
4 1	3 1	7½	13	N.E. Africa.
4 2	3 2	8	12	Gaboon.
4 0	3 2	7½	14	Gaboon.
4 7	3 5	7½	13	Gaboon.
4 6	3 6	8	14	Type of Bonap.

The Bogos country seems to be a new locality for this species, which has been noticed only from Abyssinia, Kordofahn, and the Blue and White Nile. Specimens from North-east Africa agree with Western ones.—*O. F.*

[Iris brown; beak pale lemon-colour; legs and feet flesh-colour.

Did not either procure or observe this bird, except on the river Anseba.—*W. J.*]

83. Petrocincla saxatilis (Lath.).

Petrocossyphus saxatilis, Rüpp. Syst. Uebers. p. 60. no. 188.
Petrocincla saxatilis, Heugl. Syst. Uebers. no. 270; *id.* Fauna d. Roth. Meer. no. 108; Brehm, Habesch, p. 214. no. 66.

a. ♂. Koomaylee. March 24th (no. 165).
b. ♂. Senafé. March 25th (no. 864).

[Iris dark brown; beak black; legs and feet black.

I procured one other male specimen at Senafé; these were the only ones I ever saw.—*W. J.*]

84. Cossypha semirufa (Rüpp.).

Petrocincla semirufa, Rüpp. Neue Wirbelth. (1835) p. 81.
Bessonornis semirufa, Rüpp. Syst. Uebers. p. 60. no. 186, t. 21.
Cossypha nigrocapilla, Guér. Rev. Zool. 1843, p. 162.
Bessonornis semirufa, Heugl. Syst. Uebers. no. 268.

a. Addigerat. May 7 (no. 948).

[Beak black; legs and feet black.

The only specimen procured or observed during my stay in Abyssinia or Bogos; shot near water.—*W. J.*]

85. Cossypha gutturalis, Guér.

Cossypha gutturalis, Guér. Rev. Zool. 1843, p. 162; Ferret & Galinier, Voy. en Abyss. Atlas, t. 5 (pess.).

Saxicola albigularis, Pelzeln, Verh. Z. B. Ges. Wien. (1863) xlviii. p. 149.

Irania finoti, De Filippi, Viaggio in Persia, p. 347.

Bessornis albigularis, Tristr. Ibis, 1867, p. 89, t. i.

a. ♀. Koomaylee. April 3 (no. 158).

b. ♀. Mai Wallet. August 18.

Guérin described this species after specimens brought home by MM. Ferret et Galinier from Abyssinia, without giving a certain locality. Neither Dr. Rüppell nor v. Heuglin, nor any other traveller, obtained this rare species, it is therefore of much interest to find them in the collection of Mr. Jesse. A male from North-east Africa I saw in the Berlin Museum. There is no doubt that the so-called *Saxicola albigularis* from Smyrna and Palestine, and the *Irania finoti* from Persia[1] are the same birds. The female marked *a* agrees very well with a male from Smyrna, except being beneath of a somewhat lighter and duller cinnamon-colour, and having a narrower white stripe along the chin and throat. The female, *b*, agrees very well with the figure given in the 'Ibis' (back-ground) as that of the female, but is certainly a young bird. The two sexes are alike, a fact hitherto unknown.

It must be remarked that the figure in the Atlas of the 'Voyage en Abyssinie,' by Ferret et Galinier (tab. 5), is not very correct, having the white superciliary stripe too much extended, the tail too long, &c.

Long. al.	Caud.	Culm.	Tars.
3″ 6‴	2″ 7‴	c. 6‴	12‴ . . . . *a*.
3 6	2 7	5½	11 . . . . *b*.
3 6	2 8	6	11½ . . . . ♂. Smyrna.—*O. F.*

[Eye black; beak black; legs and feet black.

Procured two specimens, both in the plains on the coast; did not observe this bird elsewhere.—*W. J.*]

86. Crateropus leucopygius, Rüpp.

Ixos leucopygius, Rüpp. Neue Wirbelth. p. 82, t. 30. f. 1.

Crateropus leucopygius, Rüpp. Syst. Uebers. p. 60. no. 199; Heugl. Syst. Uebers. no. 282; *id.* Fauna d. Roth. Meer. no. 112; Brehm, Habesch, p. 214. no. 68.

a. ♂. Undel Wells. May 5th.

b. ♀. Rayrayguddy. May 27th.

The female shows the rump only dirty white, the white of the head washed with ashy.—*O. F.*

[Iris crimson.

I have only two specimens of this species. On first looking over Dr. Finsch's list

[1] Since the above was written I have examined the type of De Filippi in the Turin Museum myself. It is a young bird of the present species.—*O. F.*

I perceived that he had divided my *Crateropodes* into three species, *C. leucopygius*, *C. limbatus*, and *C. leucocephalus*. This struck me as extraordinary, as from observation of these birds in the flesh I had mentally classed them in *two* species, though ignorant of their names. The first two I took to be one species, with only differences of plumage ascribable to age alone. While preparing these notes the doubt of the three species again struck me, and I examined the birds side by side, and finally referred to Dr. Finsch's notes to see what remarks he had made; I there find he has made the same observations as I have. Had I entertained a doubt on the subject of *C. leucopygius* and *C. limbatus* being other than one species, I would have brought home a larger series; but so certain did I feel of their identity, that, though shooting other specimens, I sacrificed them to preserve other species which I considered more valuable at the time. All three are similar in their habits and cry, which is very noisy; on alarm they fly from one bush to the other in a regular string, and are very annoying, as they often give the alarm to game or other birds the sportsman may be in pursuit of.—*W. J.*]

[Since these notes were written, I have communicated my opinion to Dr. Otto Finsch, and have received a letter from him wishing me to record my opinion that *C. limbatus* is a synonym of *C. leucopygius*.—*W. J.*]

87. Crateropus limbatus, Rüpp.

Rüpp. Syst. Uebers. pp. 48, 60. no. 202; Heugl. Syst. Uebers. no. 288.

a. ♂. Kokai. August 10 (no. 76).
b. Kokai. August 10 (no. 78).

A doubtful species, and probably the former (*C. leucopygius*) in immature state.

One specimen has the front white like a supercilium; the head, sides of head, and chin are dark brown, with indistinct ashy edgings of the feathers; the rump dirty white, like the female of the preceding species. Another specimen shows the whole forehead greyish white, passing into brown on the top of the head. Both species are of the same size.

Iris crimson.

The series in Mr. Jesse's collection proves that *C. limbatus* is probably nothing more than the young of *C. leucopygius*. There are intermediate forms with the head partially white (front and supercilium in the one, the whole forehead in the other).—*O. F.*

88. Crateropus leucocephalus, Rüpp.

Crateropus leucocephalus, Rüpp. Atlas, tab. 4; *id.* Syst. Uebers. p. 60. no. 198; Heugl. Syst. Uebers. no. 281.

a. ♂. Ain. July 6 (no. 1468).
b. ♀. Ain. July 6 (no. 586).
c. ♂. Waliko. July 21 (no. 510).
d. ♂. Waliko. August 2 (no. 996).

Long. al.	Caud.	Culm.	Tars.
4″ 1‴	4″ 1‴	$8\frac{1}{2}$‴	15‴ . . . . ad.
3 $9\frac{1}{2}$	—	7	$14\frac{1}{2}$ . . . . jun.

A young bird in the collection of Mr. Jesse has only the chin and the region adjoining the angle of the mouth whitish; the head brownish grey; vent and crissum brighter, tinged with fulvous.—*O. F.*

[Iris lemon-yellow.

Four specimens procured, two at Ain in July, and two at Waliko, on the Anseba.

No. 586 *b*, ♀, Ain, 6th July 1868, had the iris brown.

I did not observe this species while with the army.—*W. J.*]

89. Pycnonotus arsinoë (Licht.).

Ixos arsinoë, Rüpp. Syst. Uebers. p. 60. no. 196; Heugl. Syst. Uebers. no. 279; *id.* Fauna d. Roth. Meer. no. 114; Brehm, Habesch, p. 214. no. 69; Finsch & Hartl. Vögel Ostafr. p. 296. no. 139.

a. Ain. July 6.
b. ♂. Rairo. August 13 (no. 1921).
c. ♂. Kokai. July 6 (no. 1715).

[This bird was found to be very common from Ain to the Anseba, and proved to be a great nuisance, as rarely a day passed without my shooting one, taking it for a new species.—*W. J.*]

Fam. MUSCICAPIDÆ.

90. Muscicapa grisola, Linn.

Muscicapa grisola, Rüpp. Syst. Uebers. p. 61, no. 207; Heugl. Syst. Uebers. no. 295; *id.* Fauna d. Roth. Meer. no. 117; Brehm, Habesch, p. 215, no. 70; Finsch & Hartl. Vögel Ostafr. p. 300, no. 141.

a. Zoulla. June 13.
b. ♂. Mai Wallet. August 18.

It is very probable that occasional specimens of our common Flycatcher remain the whole year in Africa, as Mr. Jesse obtained it in the month of June.

Long. al.	Caud.	Culm.	Tars.
3″ 3‴	2″ 2‴	$4\frac{1}{2}$‴	7‴—*O. F.*

[I only procured two specimens of this species, and did not observe it anywhere else but at Maiwallet, and this only in the plain.—*W. J.*]

91. Muscicapa fuscula, Sundev.

Oefvers. Akad. Förh. 1850, p. 105.
Le gobe-mouche ondulé, Levaill. t. 156. f. 1.
? *Muscicapa undulata,* Vieill.
? *Butalis adusta,* Boie.

Alseonax undulata, Cab. Mus. Hein. i. p. 52.
Muscicapa minuta, Heugl. (*nec* Schilling) Syst. Uebers. no. 296.
—— *minima*, Heugl. Journ. f. Ornith. 1862, p. 301.

a. Rayrayguddy.

Long. al.	Caud.	Culm.	Lat. rostr. ad basin.	Tars.	
2″ 5‴	1″ 9‴	$3\frac{1}{2}$‴	$3\frac{1}{2}$‴	7‴	
2 5	1 9	$3\frac{1}{2}$	$3\frac{1}{4}$	7	(*M. minima*, Heugl.)

The single specimen in the collection of Mr. Jesse agrees in every respect with the representation of Levaillant's *L'ondulé* (male), and proves evidently the occurrence of that southern species in North-east Africa. Heuglin's *M. minima* from central Abyssinia, of which the Bremen Museum possesses a typical specimen from Gondar, is also undoubtedly the same. That specimen has the under surface a little darker, washed with brownish fulvous, and shows the obsolete dark markings on the breast more decidedly than the specimen in Mr. Jesse's collection, which is of a rather brownish white underneath.—*O. F.*

[Only observed at the above locality.—*W. J.*]

92. Terpsiphone melanogastra (Sws.).

Muscipeta melanogastra, Sws. B. W. Afr. ii. (1837) p. 55.
"*Tschitrea melampyra*, Verr." Hartl. W. Afr. p. 90.
Muscipeta ferreti, Guér. Rev. Zool. 1843, p. 162.
—— *melanogastra*, Rüpp. Syst. Uebers. p. 61. no. 211; Heugl. Syst. Uebers. no. 302.
Tschitrea melanogastra, Brehm, Habesch, p. 215. no. 71.
Terpsiphone melanogastra, Finsch & Hartl. Vögel Ostafr. p. 309.

a. ♂.
b. ♂. Sooroo. April 5 (no. 140).
c. ♀. Sooroo. April 5 (no. 129).
d. ♂. Kokai. July 13 (no. 813).
e, f. ♀. Kokai. July 13 (nn. 1912 et 1753).

A careful comparison of these birds with specimens from Western Africa has convinced us that there is no difference. The females in the collection agree in every respect with the types of *T. melampyra*, Verr., in the Bremen Museum. The male marked *a* has the two middle tail-feathers very much developed (13 inches), and white; the upper tail-coverts are also white, but the back is chestnut. The male, no. 140, has the two middle tail-feathers less developed, but also white; in the male, no. 813, all the tail-feathers are chestnut, like the back. The females have no prolonged tail-feathers.

Antinori's interesting observations prove that there is a very great variation in colour in this species according to the season of the year and age of the bird (see his Catalogue, pp. 46–50). A description of all the known African species of the genus *Terpsiphone* will be given in our 'Birds of East Africa.'—*O. F.*

[Iris dark brown, eyelid turquoise-blue; beak slate-colour, skin at the gape same as eyelid; legs and feet slate-colour, toes black.

I did not get any specimens of the male bird with the two white tail-feathers in very good condition, though an officer of my acquaintance obtained a good many. I did not see one with a white tail during my Bogos trip in July and August; possibly this distinction is carried only in the breeding-season, all the white-tailed specimens having been obtained in April and previously.—*W. J.*]

93. Platystira pririt (Vieill.).

Muscicapa molitor, Hahn, Vög. aus Asien, etc. (1822), Liefer. xx. t. 2.
Platystira melanoleuca et *P. molitor,* Licht. Nomencl. p. 20.
—— *pririt,* Hartl. W. Afr. p. 94; Heugl. Faun. des Roth. Meer. no. 120; Finsch & Hartl. Vögel Ostafr. p. 314. no. 147.

a. ♂. Waliko. July 27 (no. 460).
b. ♂. Undel. July 27.
c, d. Young. Waliko. July 27.
e. ♂. Rairo. August 13 (no. 58).

The two old males (*a* and *b*) agree in every respect with specimens from Damaraland and Gaboon in the Bremen Museum. The specimen *e*, marked male, has instead of a black a broad chestnut band across the throat, and the indistinct superciliary stripe pale fulvous—differences which are considered to be peculiar to the female. The two specimens *c* and *d* are young birds, apparently having left the nest only a short time. They have all the feathers on the crown, and some on the back, spotted with pale brownish white, as in our common Flycatcher; and the secondaries and tectrices are margined with pale brownish. In the one there is an indication of a chestnut cross band on the throat; in the other the throat-feathers have only pale brownish apical spots, not forming a distinct cross band.—*O. F.*

[Iris lemon-yellow.

This species common up the pass to Senafé. I cannot see any difference between this bird and *P. senegalensis* on comparing my specimens.—*W. J.*]

94. Platystira senegalensis (Linn.).

Platyrhynchus velatus, Vieill.
Platystira succincta, Licht. Nomencl. p. 20 (♀).
—— *senegalensis,* Rüpp. Syst. Uebers. p. 61. no. 212; Heugl. Syst. Uebers. no. 303; Hartl. W. Afr. p. 94; Finsch & Hartl. Vögel Ostafr. p. 317. no. 148.

♂. Waliko. August 2 (no. 1275).

The only specimen in the collection of Mr. Jesse is marked as male, and is of great interest, because it has not a black but a dark chestnut cross band on the throat, showing that this character does not belong only to the female. Otherwise it agrees

very well with male specimens from Western Africa in the Bremen Museum; the measurements are a little larger.

Long. tota.	Al.	Caud.	Culm.	Tars.	
$4\frac{1}{2}''$	$2''$ $4'''$	$1''$ $7''$	$5'''$	$8'''$	. . . Abyssinia.
$4\frac{1}{4}$	2 1	1 6	5	8	. . . Senegal.—*O. F.*

[Iris lemon-yellow.

Only one specimen procured: I doubt whether different from *P. pririt.*—*W. J.*]

Fam. AMPELIDÆ.

95. Bradyornis chocolatinus (Rüpp.).

Muscicapa chocolatina, Rüpp. Neue Wirbelth. p. 107; *id.* Syst. Uebers. pp. 49 et 61. no. 210, t. 20.
Muscicapa fumigata, Guér. Rev. Zool. 1843, p. 161.
Bradyornis chocolatinus, Finsch & Hartl. Vögel Ostafr. p. 323.

a and *b*. Senafé. May 25.

A very rare species. Excepting that the bill is a little stouter, this bird may be considered a typical *Bradyornis.* Dr. Rüppell's *Curruca chocolatina* (Syst. Uebers. t. 14) is, as proved by a careful comparison of the type in the Senckenbergian Museum, the same species as his *Muscicapa chocolatina.* The measurements are given in the following list:—

Long. tota.	Al.	Caud.	Culm.	Tars.	
c. $6''$	$3''$ $3'''$–$3''$ $4'''$	$2''$ $8'''$–$10'''$	$5'''$–$5\frac{1}{2}'''$	$10'''$	Coll. Mr. Jesse.
—	3 3	2 9	5	10	*Muscicapa chocolatina.*
—	3 3	2 8	$4\frac{3}{4}$	$9\frac{1}{2}$	*Curruca chocolatina.*

The only species of *Bradyornis*, besides the above-mentioned *Br. chocalatinus*, are *Br. mariquensis*, Sm., of South and West Africa, *Br. pallida*, Müll. (*Musciapa pallida*, Müll. Beitr. t. viii.), and *Br. pammelæna*, Stanl. (*Sylvia pammelæna*, Stanl. in Salt's Trav. in Abyss.; *Melanopepla atronitens*, Cab.; *Bradyornis ater*, Sundev.), from South-eastern and North-eastern Africa.—*O. F.*

[Iris dirty white.

I only procured two specimens of this bird, both at Senafé on the same day. Contents of stomach Coleoptera.—*W. J.*]

96. Campephaga phœnicea (Lath.).

Ceblepyris phœnicea, Rüpp. Syst. Uebers. p. 61. no. 214; Heugl. Syst. Uebers. no. 307.
Lanicterus phœniceus, Hartl. Journ. f. Orn. 1865, p. 172.

a. ♂. Senafé. April 16 (no. 444).

[Iris dark brown; beak black; legs and feet black.

I never either procured or observed another specimen of this bird, either during the

campaign or in the Bogos country. A friend at Rayrayguddy sent me up the wing of one and promised to procure specimens should I be in want of any. I requested he would, but I did not receive any more. Either the birds had left the neighbourhood, or his duties were too pressing.—*W. J.*]

97. Dicrurus divaricatus (Licht.).

Edolius lugubris, Hempr. & Ehrb. Symb. Phys. t. viii. (jun.).
Dicrurus canipennis, Sws. B. W. Afr. i. p. 254.
—— *lugubris*, Rüpp. Syst. Uebers. p. 61. no. 216; Brehm, Habesch, p. 215. no. 72.
—— *divaricatus*, Finsch & Hartl. Vögel Ostafr. p. 323. no. 150.

a. ♂. Undel Wells. May 27.
b. ♀. Undel Wells. May 27.
c. ♀. Senafé. May 22 (no. 902).

Both sexes (*a* and *b*), shot at Undel Wells, are alike, except that the female has the tail less furcated. The specimen *c* seems to be not quite old, because it has the under tail-coverts edged with white and of a more uniform dark black colour, without the steel-blue lustre. It agrees with *D. lugubris*, Ehrb., a species which cannot be separated from *D. divaricatus*, as already mentioned by the late Mr. Strickland (Proc. Zool. Soc. 1850, p. 217). The specimens *a* and *b* agree in every respect with specimens from Benguela in the Bremen Museum.

Long. al.	Rectr. inter.	Rectr. ext.	Culm.	Tars.	
4″ 9‴	3″ 7‴	4″ 1‴	c. 7‴	9½‴	*a*.
4 10	3 6	3 11	7	10	*b*.
4 6	3 6	3 9	7½	9	*c*.—*O. F.*

[Iris crimson.

Off the plains, among the hills, I found this bird rather common, always in pairs. It is very bold, driving Crows and Kites away from the neighbourhood of its nest. It feeds much after the manner of the Flycatchers, sitting on the top branch of a dead tree and making a dash straight up in the air at any passing insect, hovering a second or two, and then returning to its perch.—*W. J.*]

Fam. LANIIDÆ.

98. Lanius fallax, sp. nov. (Plate XXV.)

a. ♂. Rairo. August 13 (no. 1454).
b. ♀. Rairo. August 13 (no. 67).
c. ♀. Rairo. August 14 (no. 38).
d. ♀. Ain. August 17 (no. 92).

Supra dilute cinereus; area latissima utrinque a rostro per oculum ducta nigra, supra minus distincta, albo marginata; subtus totus albus, pectore et abdomine conspicue

cinerascente lavatis; remigibus nigricanti-fuscis, a basi ad medium fere pure albis, minoribus limbo apicali albo; scapularibus fuscis apicibus albo marginatis, pogonio interno versus basin sensim albiore; subalaribus albis; rectricibus mediis fusco-nigris, limbo apicali tenui albo, extima fere tota alba, scapo latius fusco; secunda fusca, macula terminali majore alba; rostro nigricante, mandibulæ dimidio basali albo; pedibus plumbeis.

Male. All the upper parts, including the rump and upper tail-coverts, delicate ashy grey; a very narrow frontal margin and a broad stripe, which covers the lorum, eye, and region of the ear black, margined above by an indistinct narrow whitish line; cheeks, chin, and throat white, all the remaining underparts of a light ashy grey, much lighter than the back; vent and under tail-coverts white, the same as the under quill-coverts, which are washed faintly with grey; primaries brownish black, on the basal half of both webs nearly white, forming a conspicuous white speculum; secondaries brownish black, on the basal half of the inner web whitish, and tipped broadly with white; quill-coverts brownish black, some newly developed secondaries have the basal half white, the same as the primaries; the longest of the shoulder-coverts whitish, but almost covered by the lesser shoulder-coverts; the tail-feathers black, tipped with white, narrowest on the two middle ones, increasing in breadth externally; the outmost tail-feather white, with the shaft blackish; the second feather margined with white on the outer web. Bill blackish horn-brown; the basal half of the mandible pale horn-colour; legs dark horn-brown.

The three females are similar, but want the narrow black frontal margin; the bill is paler; two specimens show the middle of the breast tinged faintly with isabelline colour.

All the specimens are in change of plumage. In moulting the female shows the back washed faintly with pale brown, indistinctly barred with darker lines.

Long. tota.	Al.	Rectr. med.	Rectr. ext.	Culm.	Tars.	
8″	4″ 0‴	3″ 10‴	3″	8″	13‴	♂.
—	3 11	3 8	2	7½	12	♀.
—	4 1	4 0	—	7½	13	♀.
—	4 2	3 7	—	7½	13	♀.

Being unable to refer this Shrike with certainty to any of the allied species, I must consider it to be new. It comes nearest to *L. lahtora*, Sykes, which occurs also on the shores of the Red Sea, but differs in the pale greyish tint of the under parts, which are decidedly white in *L. lahtora*. Otherwise there is scarcely any difference. The greyish tint of the belly, which all the specimens in Mr. Jesse's collection exhibit, shows its relation to *L. algeriensis*, Less.; but in this species the grey tone is much darker, the upper parts are dark ashy grey, and the outermost tail-feather is black with a broad white apical spot. *L. pallidirostris*, Cass., also an allied species, has the bill pale horn-colour, the under parts white. *L. pallens* is distinguished at once by the white rump.

I believe I am not mistaken in referring the *L. algeriensis* in the list of the birds collected by Mr. Daubeny (Sclater, Contrib. to Ornith. 1852, p. 125; Heugl. Fauna d. Roth. Meer. no. 127) at Mokkolla, near Massowa, to this species.

L. algeriensis, noticed by Mr. Strickland (Proc. Zool. Soc. 1850, p. 217) from Cordofahn, is certainly not this species, but very probably *L. pallidirostris*, Cass.—*O. F.*

[Iris brown; legs blue-grey.

I procured four specimens, all more or less moulting: three were from Rairo, the fourth was shot a few miles from Ain, on the plain towards Mai Wallet. I believe I shot two specimens of this Shrike at Koomaylee, but was too unwell to preserve them; this was in the middle of March.—*W. J.*]

99. Lanius collurio, L.

Enneoctonus collurio, Rüpp. Syst. Uebers. p. 62. no. 221; Heugl. Syst. Uebers. no. 318; *id.* Fauna d. Roth. Meer. no. 130.

Lanius collurio, Finsch & Hartl. Vögel Ostafr. p. 331. no. 154.

a. ♀. Senafé, April 25th (no. 467).

[Iris brown; beak brown; legs and feet brown.

The only specimen procured or observed.—*W. J.*]

100. Lanius senator, Linn.

Lanius senator, Linn. S. N. ed. x. p. 94.

Lanius rufus (Briss.), Rüpp. Syst. Uebers. p. 62. no. 217; Heugl. Syst. Uebers. no. 317; *id.* Fauna d. Roth. Meer. no. 131.

—— *paradoxus,* Brehm, Journ. f. Orn. 1854, p. 75 (Anm.); Heugl. Syst. Uebers. no. 321.

—— *rutilans* (Temm.): Hartl. West Afr. p. 103.

a. Adult.

b. ♂. Young. Amba. August 21st (no. M).

I at first mistook the specimens in Mr. Jesse's collection for the *L. paradoxus*, Brehm, because they showed the tail-feathers, inclusive of the two middle ones, on the basal third white on both webs, this being the distinguishing character of that species. After having examined a larger series of skins I find that this is not a character of specific value; for a female from the Hercynian Mountains agrees in that respect, whereas the male from the same locality has the two middle tail-feathers, as usual, of a uniform black. There is in general a great variation amongst specimens of this Shrike, according to age and season.

The old male (*a*) in Mr. Jesse's collection agrees in every respect with a German specimen, except in having the two middle tail-feathers white at the base, as already mentioned; the upper tail-coverts are also white throughout, whereas in the German specimens these feathers are pointed with black.

The specimen *b* is a young one, having changed its first plumage: the head and

hinder part of the neck are pale rufous, with obsolete dark cross lines; back brown; rump greyish brown; hind part of the rump and upper tail-coverts pale isabelline white, like the shoulders, which are tinged with brown on the centre of each feather and the outer margin of the quill-coverts and tertiaries; quills dark brown, with a white speculum, as in the old bird; lores and an indistinct supercilium, like the whole undersurface, white, washed with isabelline fulvous on the flanks; ear-spot dark brown; tail-feathers as in the old one, but the ground-colour brown, not black. Bill pale horn-brown, in the adult black, with the basal portion of the mandible pale.

A careful comparison has also convinced me that the West-African *L. rutilans*, Temm., said to differ in its lighter tints, and in having the shoulders and quill-coverts margined externally with pale brown or white, is by no means separable. All the specimens which show these differences are in imperfect plumage, and bear more or less remains of the immature plumage.

An old male from the Gold Coast (type of *L. badius*, Hartlaub) is quite similar to a German specimen; but the rufous colour on the head is darker, and the white speculum on the primaries is scarcely visible, being represented on the outer web by pale rufous, just as in young birds. Another male from the Casamanse is as darkly coloured above as European specimens, but exhibits light brown margins on the quill-coverts; the under parts are strongly washed with cinnamomeous fulvous, and marked with obscure cross lines, which are apparently the remains of a younger dress; the two middle tail-feathers are also white on the base, but only on the outer web. A female from the Casamanse river agrees with a European female in every respect, except in having pale margins on the quill-coverts, which are only partially exhibited in the European bird. Both these have the back much lighter than in the male, and the under parts tinged with pale ochreous-fulvous; in the African bird the black feathers on the forehead have the rufous margins more visible. Another female from the Casamanse has the back rather paler brown, the forehead more mixed with white, forming an indistinct supercilium; the light margins on the coverts are less visible, and scarcely more developed than in European specimens; the under surface is white, as in the male, faintly tinged with ochre-yellow.

Ignorance of these variations, which Naumann has pointed out, has caused some of them to be taken for specific characters, and species have been founded on them—such as *L. pectoralis*, Müller (Journ. f. Orn. 1855, p. 450. no. 583), and *L. jardinei*, Müller (ib. no. 584). A *Lanius* from Tigreh, described by Von Heuglin (Journ. f. Orn. 1861, p. 195. no. 34) as probably different, belongs also to *L. senator*.

It may be remarked that Levaillant's "*Piegrièche rousse*" (tab. 63) refers to our European bird, as has been already pointed out by Professor Sundevall.

I append the measurements of several specimens from Europe and Africa to prove that there is no difference in size.

Long. al.	Caud.	Culm.	Tars.	
3″ 6‴	2″ 9‴	c. 6‴	10‴ . .	ad. Bogos.
3 8	2 10	6	10 . .	jun. Bogos.
3 10	3 0	6	10 . .	♂. Germany.
3 8	2 9	5½	9½ . .	♀. Germany.
3 7–3″ 9‴	2 6–2″ 10‴	5½–6‴	9‴–10‴	West Africa (4 spec.).—*O. F.*

[Iris brown.

One other immature male specimen from Amba.—*W. J.*]

101. Lanius nubicus, Licht.

Lanius personatus, Temm.; Rüpp. Syst. Uebers. p. 62. no. 218.
Leucometopon nubicus, Heugl. Fauna d. Roth. Meer. no. 129.
Collurio nubicus, Hartl. W. Afr. p. 103.

a. ♂. Ain. August 17th (no. 98).
b. ♂. Gelamet. August 11th (no. 4).

The Bogos country seems to be a new locality for this widely distributed species. Von Heuglin mentions it only from North Arabia.—*O. F.*

[Iris brown.

In Dr. O. Finsch's note on this species he mentions Bogos as a new locality; I may therefore observe that Gelamet is not thirty miles from the coast plain, and is of a much lower elevation than Bogos. Gelamet belongs properly, I believe, to Hamazan. Ain, where the second specimen was procured, is, of course, lower still. I do not remember to have observed this species on the Anseba.—*W. J.*]

102. Lanius fiscus, Cab.

Lanius fiscus, Cab. Mus. Hein. i. p. 74.
Laniarius collaris, Rüpp. (*nec* L.) Syst. Uebers. p. 62. no. 230.
Telophorus collaris, (Lath.) Heugl. Syst. Uebers. no. 325.
Collurio smithii, Brehm, Habesch, p. 215. no. 73.

a. ♂. Senafé. April 25 (no. 465).
b. ♂. Bejook. July 13 (no. 782).
c. ♂. Bejook. July 13 (no. 1957).
d. ♀. Bejook. July 13 (no. 1194).

I agree with Dr. Cabanis in separating the north-eastern bird from the southern *L. collaris*, Lath., but must remark that the only difference consists in the tail-feathers being considerably narrower, and in the somewhat smaller size; the colouring in both species is exactly similar.

Both females in the collection of Mr. Jesse have the feathers of the flanks rusty-coloured.

Long. al.	Caud.	Culm.	Tars.	
3″ 4‴–3″ 7‴	4″–4″ 4‴	6‴	10‴–11‴ . .	*L. fiscus.*
3 9 –3 10	4 –4 1	6½	12 –13 . .	*L. collaris.*

L. smithii, enumerated by Dr. Brehm in his 'Ergebnisse einer Reise nach Habesch,' is certainly this species. The true *L. smithii*, Fraser, known only from West Africa, is very closely allied, but distinguished at once by the deep black colour of the upper parts.—*O. F.*

[Iris brown; beak black; legs and feet black.

Very plentiful about Senafé and Bejook. Sits perched, like the generality of this family, on some bush or dead branch, so as to see well around.—*W. J.*]

103. Nilaus brubru (Lath.).

Nilaus brubru, Rüpp. Syst. Uebers. p. 62. no. 223; Heugl. Syst. Uebers. no. 322; *id.* Fauna d. Roth. Meer. no. 122; Finsch & Hartl. Vögel Ostafr. p. 333. no. 155.

a. ♂. Waliko. July 20 (no. 1973).
b. ♂. Waliko. July 23 (no. 1081).

[Iris brown; beak black; legs and feet slate-blue.

I only procured two specimens of this species, both at Waliko. Mr. W. T. Blanford also obtained it, one specimen (a female, if my memory be true), from Ailet. The female has the plumage lighter and less marked.—*W. J.*]

104. Telephonus erythropterus (Shaw).

Laniarius erythropterus, Rüpp. Syst. Uebers. p. 62. no. 228; Heugl. Syst. Uebers. no. 324; *id.* Fauna d. Roth. Meer. no. 133.

Telephonus erythropterus, Brehm, Habesch, p. 215. no. 76; Finsch & Hartl. Vögel Ostafr. p. 336. no. 157.

a. ♂. Bejook. July 16 (no. 1950).
b. ♂. Bejook. July 17 (no. 1109).
c. ♂. Bejook. July 18 (no. 1876).

Long. al.	Caud.	Culm.	Tars.
2″ 11‴–3″ 1‴	3″ 2‴–3″ 5‴	9‴	13–13½‴.

There is no difference between specimens from North-eastern and Western Africa.—*O. F.*

[Iris brown; beak black; legs and feet grey (bluish).

Rather plentiful about Bejook; also observed between Rayrayguddy and Senafé. In habits, much more shy than the other Shrikes, never exposing itself, but threading the bushes more like a Warbler. I notice in this species, as well as others of the Laniidæ collected, that the little hook at the end of the upper mandible is in some cases wanting, the upper not overhanging the lower mandible; possibly this is the effect of age, though I have not remarked any corresponding difference in the plumage. Not observed in the coast plains.—*W. J.*]

105. Laniarius gambensis, Licht.

Dryoscopus gambensis, Hartl. W. Afr. p. 110.
—— *cubla,* Rüpp. Syst. Uebers. p. 62. no. 226; Heugl. Syst. Uebers. no. 329.
Malaconotus malzacii, Heugl. Syst. Uebers. no. 334; Brehm, Habesch, p. 215. no. 75.

a. ♂? Bejook. July 16 (no. 1283).
b. ♂. Bejook. July 16 (no. 1850).
c. ♂. Bejook. July 18 (no. 759).
d. ♀. Waliko. July 20 (no. 1757).
e. ♂. Waliko. August 2 (no. 1102).
f. ♂. Maragaz. July 27 (no. 861).
g. ♀. Maragaz. July 27 (no. 985).

Long. al.	Caud.	Culm.	Tars.
3″ 5‴–3″ 7‴	2″ 8‴–2″ 11‴	$7\frac{1}{2}$‴	10‴ . . . ♂.
3 4 –3 5	2 9	$7\frac{1}{2}$	— . . . ♀.

All writers on North-east African Ornithology have mistaken this species for the *L. cubla* of Levaillant, which does not occur in that portion of Africa. Both species are much alike; but *L. gambensis* has the rump tinged with grey, and is always larger. I have compared numerous specimens from Western and North-eastern Africa, and find them quite similar. Von Heuglin's undescribed *Malaconotus malzacii* from the Bahr el Abiad, of which I have inspected the type in the Vienna Museum, is undoubtedly a female of *L. gambensis.*—*O. F.*

[Iris orange-red; beak black, or slate-blue; legs and feet dark blue-grey.

I only met with this bird on the river Anseba, at Waliko, Bejook, and Maragaz, where it was plentiful. Contents of stomach, coleoptera. If no. 1283 is a male, it is doubtless a young bird.—*W. J.*]

106. Laniarius æthiopicus (Vieill.).

Telophorus æthiopicus, Rüpp. Syst. Uebers. pp. 50 et 62. no. 222. t. 23; Heugl. Syst. Uebers. no. 323; *id.* Fauna d. Roth. Meer. no. 134; Brehm, Habesch, p. 215. no. 74.
Laniarius æthiopicus, Finsch & Hartl. Vögel Ostafr. p. 343. no. 160.

a. Sooroo. April 5 (no. 680).
b. ♀. Waliko. August 4 (no. 734).

[Iris brown; beak black; legs and feet slate-colour.

Common from Senafé to the plain of Koomaylee, also from the Anseba to Ain, in pairs. It differs from the true Shrikes in its habit of sneaking among the lower branches of bushes, and is frequently seen on the ground. It has two notes—each, I fancy, peculiar to one sex; but I am not sure; anyhow the one appears always to answer the other. One note consists of two bell-like whistles, repeated consecutively at intervals, not unlike that of the Bell-bird of Brazil; the answer is a grating noise, sometimes resembling rapid cracking of sticks. Indeed, in the jungle I have more than once turned to see what might be coming.—*W. J.*]

107. Laniarius cruentus (Hemp. & Ehrb.).

Laniarius cruentus, Hempr. & Ehrenb. Symb. Phys. av. t. iii.; Rüpp. Syst. Uebers. p. 62. no. 227; Heugl. Syst. Uebers. no. 330; *id.* Fauna d. Roth. Meer. no. 135; Brehm, Habesch, p. 215. no. 77; Finsch & Hartl. Vögel Ostafr. p. 354. no. 171.

a. ♂. River Amba. August 19.

b. ♂. Rairo. August 14.

Both specimens are males with the beautiful rose colouring on the breast, like fig. 2 on tab. iii. in the 'Symbolæ physicæ.'—*O. F.*

[Iris brown.

Two male specimens obtained, one at Amba. I had not seen it before; but Mr. W. T. Blanford told me it was one of the first birds he shot at Loulla.—*W. J.*]

Fam. CORVIDÆ.

108. Archicorax crassirostris (Rüpp.).

Corvus crassirostris, Rüpp. Neue Wirbelth. t. 8.

Corvultur crassirostris, Rüpp. Syst. Uebers. p. 75. no. 242; Heugl. Syst. Uebers. no. 346; *id.* Fauna des Roth. Meer. no. 136.

Archicorax crassirostris, Finsch & Hartl. Vögel Ostafr. p. 370. no. 181.

a. ♂. Takonda Pass. April 21 (no. 456).

[The only specimen procured was sent to me in the flesh by a friend; eye too far gone to note colour of iris. I afterwards saw one of these birds at Facado, and heard that they were much commoner further south, on the road to Antalo. I did not see it in the Bogos country. Contents of stomach, dung.—*W. J.*]

109. Corvus affinis, Rüpp.

Corvus affinis, Rüpp. Neue Wirbelth. t. 10. f. 2; *id.* Syst. Uebers. p. 75. no. 239; Heugl. Syst. Uebers. no. 343; *id.* Fauna d. Roth. Meer. no. 142; Brehm, Habesch, p. 216. no. 79; Finsch & Hartl. Vögel Ostafr. p. 372. no. 183.

a. ♂. Senafé. April (no. 410).

Long. al.	Caud.	Culm.	Rost. a rict.	Tars.	Dig. med.
15″	5″ 10‴	1″ 10‴	2″ 3‴	2″ 7‴	1″ 7‴.—*O. F.*

[Common from Koomaylee to Addigerat from March to May.—*W. J.*]

110. Corvus scapulatus, Daud.

Corvus leuconotus, Sws. B. W. Afr. i. pl. 5.

—— *scapulatus*, Rüpp. Syst. Uebers. p. 75. no. 238; Heugl. Syst. Uebers. no. 245; *id.* Faun. des Roth. Meer. no. 137.

—— *phæocephalus*, Cab. Mus. Hein. i. p. 232.

Corax scapulatus, Brehm, Habesch, p. 216. no. 80.
Corvus scapulatus, Finsch & Hartl. Vögel Ostafr. p. 374. no. 185.

a. ♂. Koomaylee. March 19 (no. 144).
b. ♂. Rairo. August 13 (no. 1452).
c. ♂. Rairo. August 13 (no. 1178).
d. ♀. Rairo. August 13 (no. 1370).
e. ♀. Rairo. August 13 (no. 1479).

The fine series in Mr. Jesse's collection plainly shows that *C. phœocephalus*, Cab., is not a good species, but the immature *C. scapulatus*. A male specimen from Rairo has the throat with dark umber-brown feathers strongly intermixed, and presents therefore undoubtedly an intermediate form between *C. phœocephalus* and *C. scapulatus*. Other specimens in Mr. Jesse's collection are not distinguishable from western specimens. The white collar on the hind neck varies much in extension.—*O. F.*

[Iris dark brown; beak black; legs and feet black.

Rather plentiful in March at Koomaylee, but not nearly so much so as *C. affinis*. Five specimens were procured one day in August at Rairo. I saw it between Ain and Massua; but did not see any specimen of *C. affinis* during that month. I do not remember seeing *C. scapulatus* anywhere in the highlands.—*W. J.*]

Fam. STURNIDÆ.

111. Pholidauges leucogaster (Gml.).

Lamprotornis leucogaster, Rüpp. Syst. Uebers. p. 75. no. 245; Heugl. Syst. Uebers. no. 349.
Pholidauges leucogaster, Fauna des Roth. Meer. no. 151; Brehm, Habesch, p. 217. no. 85; Finsch & Hartl. Ostafr. p. 376. no. 186.

a. ♀. Sooroo. May 29.
b. ♂. Undel Wells. May 27.
c. ♂. Undel Wells. May 27.
d. ♂. Undel Wells. May 27.
e. ♂. Undel Wells. May 29.
f. ♀. Senafé. April 4 (no. 480).
g. ♂. Senafé Rock. April 14 (no. 164).
h. ♂. Senafé. April 14 (no. 163).
i. ♀. Senafé. May 22 (no. 1107).
k. ♂. Monbar-Haratt-b', August 15.
l. ♂. Rairo. August 14 (no. 53).
m. ♀. Rairo. August 15 (no. 91).
n. ♂. Rairo. August 16 (no. 12).

Dr. Rüppell and von Heuglin maintain that the sexes in this species are alike, and that the spotted specimens are young birds. This opinion seems to be not quite correct; for all the splendid blue specimens with white under surfaces (nine in number)

in Mr. Jesse's collection are marked "male," the spotted ones (four) "females." These notices are of more value, as Mr. Jesse has determined the sexes by anatomical dissection.—*O. F.*

[Iris lightish brown; beak black; legs and feet black.

The series of ten specimens before me were procured at the following localities, the two earliest dating 14th April, 1868: Sooroo, Undel Wells, Senafé (Abyssinia), Rairo, and Monbar-Haratt-b' (Hamazan). Up to about the beginning of April these birds were not to be seen, and only began to be plentiful towards the end of May. The female resembles the common Thrush (*Turdus musicus*) in plumage.

Those shot at Rairo and Monbar-Haratt-b' were killed in August.—*W. J.*]

112. Notauges chrysogaster (Gml.).

Lamprotornis rufiventris, Rüpp. Neue Wirbelth. t. 11. f. 1; *id.* Syst. Uebers. p. 75. no. 247; Heugl. Syst. Uebers. no. 351.
Notauges chrysogaster, Heugl. Fauna des Roth. M. no. 148.
Lamprocolius rufiventris, Brehm, Habesch, p. 216. no. 84.

a. ♀. Eylet. June 24 (no. 1255).
b. ♀. Eylet. June 24 (no. 446).
c. ♂. Eylet. June 25 (no. 1290).
d. ♂. Waliko. July 24 (no. 1423).
e. ♂. Waliko. July 24 (no. 935).

[Iris white; beak black; legs and feet black.

This bird I first met with during the journey to Bogos, at Eylet, and again on the river Anseba; it occurs in flocks, is a noisy bird, and is not unlike the common Starling (*S. vulgaris*) in its habits. Towards the end of the season, or rather of my stay in the Bogos country, these birds were infested with vermin[1], and were so disfigured as to be useless as specimens. Contents of stomach, principally coleoptera.—*W. J.*]

113. Lamprotornis purpuroptera, Rüpp.

Lamprotornis purpuropterus, Rüpp. Syst. Uebers. pp. 64 et 75. no. 251. t. 25.
—— *æneocephalus* et *L. Burchelli,* Heugl. Syst. Uebers. nos. 355, 356.
—— *æneus,* Brehm, Habesch, p. 216. no. 82.
—— *purpuroptera,* Hartl. Journ. f. Orn. 1859, p. 11.

a. ♂. Bejook. July 13 (no. 1669).
b. Bejook. July 13 (no. 1997).
c. ♀. Waliko. July 23 (no. 1208).
d. ♂. Waliko. July 24 (no. 1738).

The sexes are alike; but the females are a good deal smaller in size.

[1] Lice and ticks, some of the latter quite an eighth of an inch square.—*W. J.*

Long. tot.	Al.	Caud.	Culm.	Tars.
c. 14″	6″ 6‴	7″ 6‴	$8\frac{1}{2}$‴	20‴ . . . . ♂.
—	6 4	7 0	$7\frac{1}{2}$	16 . . . . ♂.
c. 10	5 4	6 0	$8\frac{1}{2}$	16 . . . . ♀.
—	5 3	5 5	7	16 . . . . ♀.—*O. F.*

[Iris yellowish white.

I did not meet with this species but on the Anseba river.—*W. J.*]

114. Lamprocolius chalybeus (Hempr. & Ehrb.).

Lamprotornis chalybæus, Rüpp. Syst. Uebers. p. 75. no. 248; Heugl. Syst. Uebers.. no. 352; *id.* Fauna des Roth. Meer. no. 146; Brehm, Habesch, p. 216. no. 83; Hartl. Journ. f. Orn. 1859, p. 21.

—— *abyssinicus*, Hartl. Journ. f. Orn. 1859, p. 21.

a. ♂. Senafé. April 14 (no. 168).

b. ♂. Senafé. April 12 (no. 147).

c. ♂. Maragaz. July 29.

The female is not so brilliantly coloured, more of a dull bronze-green, and has the blue shine on the vent and rump less distinct; the blue ear-spot is scarcely visible, the black end-spots of the tectrices are wanting. The males are larger, and vary also in the extension of the steel-blue spot on the ears. On such specimens Dr. Hartlaub founded his *L. abyssinicus*, which does not merit specific distinction.

Long. al.	Caud.	Culm.	Tars.		
5″ 2‴–5″ 7‴	3″ 1‴–3″ 6‴	$7\frac{1}{2}$‴–8‴	15‴	♂.	
5 1	3 1	7	15	♀.	
5 5 –5 6	3 6 –3 7	8	15	♂. *L. abyssinicus*, Hartl.	Mus. Brem.
5 2 –5 4	3 4	7 –8	14 –15‴	♂. *L. chalybeus.*	Mus. Brem.
4 8 –4 10	2 10 –3	8	14	♀. *L. chalybeus.*	Mus. Brem—*O. F.*

[Iris orange; beak black; legs and feet black.

In April these birds were in pairs, later (from May to August) they were in flocks. I did not meet with this species, except in the passes and on the highlands, at any time. —*W. J.*]

115. Amydrus rueppellii, Verr.

Lamprotornis morio, Rüpp. Syst. Uebers. p. 71. no. 252; Heugl. Syst. Uebers. no. 357.

Amydrus rüppellii, Verr., Hartl. Monogr. Journ. f. Orn. 1859, p. 31; Finsch & Hartl. Vögel Ostafr. p. 382. no. 191.

a. ♀. Rayrayguddy (no. 463).

Long. al.	Caud.	Culm.	Tars.
6″	6″	12‴	16‴

A. blythii, Hartl. (J. f. Orn. 1859, p. 32), seems not to be different.—*O. F.*

[I only obtained one specimen, but saw plenty. Not seen out of the passes, and most common about the rocks on Senafé plateau.—*W. J.*]

116. Amydrus tenuirostris (Rüpp.).

Lamprotornis tenuirostris, Rüpp. Neue Wirbelth. pl. 10. f. 1; *id.* Syst. Uebers. p. 75. no. 253; Heugl. Syst. Uebers. no 358.
Oligomydrus tenuirostris, Hartl. Journ. f. Orn. 1859, p. 34.

a. Addigerat. May 4 (no. 991).

Von Heuglin's *Oligomydrus sturninus* (J. f. O. 1863, p. 15) is the young of this species. I have compared the type specimens from Begemeder.—*O. F.*

[Iris brown; beak black; legs and feet black.

The only specimen I procured. I cannot say whether this species is common or not, as at a distance it may be easily confounded with *A. rueppellii* and *A. albirostris*, owing to its general appearance.—*W. J.*]

117. Amydrus albirostris (Rüpp.).

Ptilonorhynchus albirostris, Rüpp. Neue Wirbelth. t. 9. f. 1; *id.* Syst. Uebers. p. 75. no. 244; Heugl. Syst. Uebers. no. 348; Brehm, Habesch, p. 216. no. 81.
Pilorhinus albirostris, Hartl. Journ. f. Orn. 1859, p. 30.

a. ♂. Rayrayguddy. May 27.

[Beak yellowish white.

The only specimen. Not observed elsewhere.—*W. J.*].

118. Buphaga erythrorhyncha (Stanl.).

Buphaga erythrorhyncha, Rüpp. Syst. Uebers. p. 76. no. 254; Heugl. Syst. Uebers. no. 359; *id.* Fauna d. Roth. Meer. no. 154; Brehm, Habesch, p. 217. no. 86; Finsch & Hartl. Vögel Ostafr. p. 384. no. 192.

a. ♂. Eylet. June 24 (no. 1278).
b. ♂. Eylet. June 26 (no. 1878).
c. ♂. Eylet. June 26 (no. 148).
d. Eylet. June 26 (no. 1266).
e. ♂. Maragaz. July 29 (no 652).

[Iris lemon-yellow, skin round the eye (eyelid) the same; beak orange-yellow; legs and feet dark grey.

Very universally distributed both in the highlands and in the plain. Runs over animals (cattle) like a Woodpecker, over and under with equal facility. Feeds on vermin. Toes not reversible. Contents of stomach ticks and blood.—*W. J.*]

Fam. PLOCEIDÆ.

119. Textor alecto, Temm.

Textor alecto, Rüpp. Syst. Uebers. p. 76. no. 257; Heugl. Syst. Uebers. no. 363; Brehm, Habesch, p. 217. no. 89.

a. ♀. Waliko. July 19 (no. 717).
b. ♀. Waliko. July 21 (no. 1157).
c. ♂. Waliko. July 23 (no. 1960).

[Iris brown; beak light horn-colour at the tip, base thickly covered with a white rough coating, apparently not horn, and rather soft; legs and feet dirty grey.

I only procured and observed this bird on the Anseba; it was not very plentiful. Mr. W. T. Blanford shot one without the white rough covering at the base of the beak, possibly a young bird. Those seen were in company with a flock of *Lamprocolius chalybeus*. Perhaps the peculiarity about the base of both mandibles may be better described as excrescences.—*W. J.*]

120. Hyphantornis abyssinicus (Gm.).

Loxia abyssinica, Gm. S. N. i. p. 860.
Ploceus larvatus, Rüpp. Neue Wirbelth. t. 32. f. 1 (♂); *id.* Syst. Uebers. p. 76. no. 260.
—— *flavoviridis*, Rüpp. Syst. Uebers. pp. 69 et 76. no. 259, t. 29 (♀).
—— *larvatus* et *H. flavoviridis*, Heugl. Syst. Uebers. nos. 368 et 365; *id.* Fauna d. Roth. Meer. no. 159.
Hyphantornis abyssinicus, Finsch & Hartl. Vögel Ostafr. p. 388.

a. ♀. Goon Goona. May 8 (no. 1795).
b. ♂. Goon Goona. May 9 (no. 802).
c. ♂. Goon Goona. May 19 (no. 1195).

Long. al.	Caud.	Culm.	Tars.
3″ 5‴–3″ 6‴	2″ 1‴	9‴–10‴	10‴ . . . . ♂, ♀.

The female agrees in every respect with *H. flavoviridis*, which is described and figured by Dr. Rüppell as a different species. Von Heuglin was of the same opinion, and maintained even in his 'Fauna des Rothen Meeres,' that he met this species breeding in colonies, but never found amongst them a black-capped male. Now he has altered this opinion, and declares *H. flavoviridis* to be only the winter dress of *H. larvatus*. It must be remarked that the females are scarcely or not at all separable from those of *H. melanocephalus*, Gmel. (*H. textor* auct.), a species which also occurs in North-east Africa.

The *H. flavoviridis* of Dr. Brehm's list (p. 217. no. 88) cannot be this species; for the length of the wing (p. 336) is given as only 2 inches.—*O. F.*

[Iris brown.

I only obtained three specimens of this species. Specimens *a* and *b* were shot on two consecutive days, within a hundred yards of the same place, thus leading one to infer reasonably that Dr. Rüppell's *H. flavoviridis* and *H. larvatus* are one and the same species. At the time I procured the above two specimens I only saw one or two

others. The remaining specimen, a male, in not quite so bright plumage, was shot in the same neighbourhood, on the 19th May, by a friend.—*W. J.*]

121. Hyphantornis galbula (Rüpp.).

Ploceus galbula, Rüpp. Neue Wirbelth. t. 32. f. 2; *id.* Syst. Uebers. p. 76. no. 261; Heugl. Syst. Uebers. no. 367; *id.* Fauna d. Roth. Meer. no. 156.
Hyphantornis galbula, Brehm, Habesch, p. 217. no. 87; Finsch & Hartl. Vögel Ostafr. p. 398.

a. ♂. Koomaylee. March 23 (no. 184).
b. ♀. Koomaylee. March 23 (no. 122).
c. ♂. Undel Wells. May 28.
d. ♀. Ailet. June 29 (no. 1842).
e. ♂. Bejook. July 16 (no. 1644).
f. ♂. Bejook. July 16 (no. 1453).
g. ♀.

Long. al.	Caud.	Culm.	Tars.
2″ 7‴–2″ 8‴	1″ 6½‴–1″ 9‴	6½‴	9½‴ . . . ♂.
2 5 –2 7	„	„	„ . . . ♀.

The females resemble those of *H. larvatus.*

Head and upper parts olive-greyish, the feathers on the hind neck and back with obsolete brownish shaft-stripes; rump and upper tail-coverts olive-yellow; supercilium, sides of the head, chin, throat, and breast pale olive-yellow; vent, sides, and under tail-coverts whitish; quills dark brown, margined externally with olive-yellow, on the inner web more broadly with pale yellow; quill-coverts brown, margined with pale brownish yellow; under quill-coverts of the same colour; tail brown, with olive yellow margins. Maxilla pale horn-brown, like the legs; mandibula pale horn-yellow.—*O. F.*

[Iris dark brown; beak black; legs and feet pinkish.

Widely distributed from the plains to the highlands. At Koomaylee, close to camp, in March, they were building, but after a few days left the neighbourhood. I afterwards saw this species building at Bejook in July, and that in the middle of the month; still the nests were not finished; thus I did not obtain eggs. The nest is built of grass, shaped like a cricket-ball, and of about the same size, with a short spout turning downwards. Seen in colonies.—*W. J.*]

122. Hyphantornis luteolus (Licht.).

Ploceus personatus, Vieill.
Fringilla (*Acanthus*) *chrysomelas,* Heugl. Syst. Uebers. no. 418.
Hyphantornis chrysomelas, Heugl. Journ. f. Orn. 1862, p. 25.
—— *personatus* et *H. luteolus,* Hartl. W. Afr. p. 123.

a. ♂. Bejook. July 17 (no. 1750).
b. ♀. Gabena Weldt Gonfallon. August 6 (no. 977).

The female wants the black on the face; the whole upper parts are olive-green,

inclining to olive-yellow on the head; superciliaries, cheeks, and the under surface greenish yellow.

Long. al.	Caud.	Culm.	Tars.	
2″ 2‴–2″ 3‴	1″ 5‴	5½‴	7½‴ . . .	North-east Africa.
2 1 –2 2	1 5	5½ –6‴	8 . . .	West Africa.

The north-eastern specimens, which von Heuglin formerly separated as distinct (*H. chrysomelas*), are similar to western ones. The only difference is that the north-eastern birds show the orange-yellow tint on the sides of the neck and breast very faintly; but that is certainly only in consequence of the season. A western specimen from Ashantee agrees in that point with north-eastern ones. A larger series would probably prove that there is not even a difference of race.—*O. F.*

[Iris burnt sienna; beak almost black; legs and feet bluish grey.

This was a rare bird, as far as my observations went; I never saw more than half a dozen during my stay on the Anseba, and never met with it elsewhere. Mr. W. T. Blanford, I think, obtained only one specimen, also on the Anseba. No. 977 (♀), from Gabena Weldt Gonfallon, close to Bejook, I shot going from the nest, and obtained the eggs, together with another nest in the same tree, two eggs in one and one in the other. I only obtained two birds.—*W. J.*]

123. Ploceus æthiopicus, Sundev.

Ploceus sanguinirostris, var. *æthiopicus,* Sund. Öfv. 1850, p. 126; Finsch & Hartl. Vögel Ostafr. p. 409.

Coccothraustes sanguinirostris, Heugl. Syst. Uebers. no. 387.

Quelea sanguinirostris orientalis, Heugl. Journ. f. Orn. 1867, p. 391.

a. ♂. Eylet. June 29 (no. 1866).
b. ♂. Eylet. June 29 (no. 1254).
c. ♀. Eylet. June 29 (no. 1416).
d. ♀. Eylet. June 29 (no. 1247).
e. ♀. Maragaz. July 27 (no. 1089).
f. ♂. Bejook. July 16 (no. 1979).
g. ♀. Bejook. July 18 (no. 1244).
h. ♂. Bejook. July 18 (no. 625).

Long. al.	Caud.	Culm.	Tars.	
2″ 6‴–2″ 7‴	15‴	7‴	8½	♂.
2 6 –2 8	,,	7	,, ...	♀.

The north-eastern form seems to merit specific separation, as has already been pointed out by Professor Sundevall. The males always want the black margin on the front, which is invariably present in the southern and western *Pl. sanguinirostris*; the head is ochre-fulvous, like the belly, without the rose-tinge more or less visible in *Pl. sanguinirostris.* It is therefore in every case easy to distinguish *Pl. æthiopicus* when old and in full dress. The females and young ones, however, are scarcely,

or, to speak more exactly, not at all distinguishable from those of the true *Pl. sanguinirostris*. It may be remarked that the western form (*Pl. occidentalis*, Hartl.) is the same as the southern, not being constantly smaller, as Professor Sundevall and Dr. Hartlaub suggest.—*O. F.*

[Iris brown, orbit orange-red; beak deep orange-red verging on crimson; legs and feet reddish pink.

In the female the above colours were much paler. I met with this species first at Eylet, Mr. W. T. Blanford giving me the first I ever had, I being ill at the time. Observed more or less up the pass to the Anseba, there in plenty, as indeed at Eylet, in flocks. I never saw this species elsewhere during my stay in Abyssinia, or rather Tigré; for Abyssinia proper I never reached, Addigerat being on the border. One evening on the Anseba, after a heavy spate, I saw a number of small birds hawking a swarm of flying ants just escaped from the nest, and on shooting several found them to be of this species. They were not quite so handy at this work as regular insectivorous birds, but still clever enough to make a meal.

Nos. 1866, 1254, 1979, and 625, mature males, have the cheeks, throat, and chin black, or nearly so, and the head and nape buff-colour; 1089 has but the faintest signs of black on the cheek, none on the chin, and the head and breast are of a much deeper or redder buff; 1244 and 1247 (♀) have head and nape dark-brownish grey, and the cheeks a little paler, throat and chin pale buff; 1416 agrees with the two former in the head, nape, and cheeks, but has black spots under the chin. Thus this series would seem to be paradoxical, as I know the sexes were rightly determined. Perhaps this species varies much?—*W. J.*]

124. Penthetria flaviscapulata (Rüpp.).

Coliupasser flaviscapulatus, Rüpp. Neue Wirbelth. p. 98.
Fringilla macrocerca, Licht. Verz. Doubl. p. 24; Brown, Illust. t. xi.
C. macrurus, Rüpp. (nec Gmel.) Syst. Uebers. p. 77. no. 272; Heugl. Syst. Uebers. no. 392.
Penthetria macrocerca, Cab. Mus. Hein. i. p. 176.

a. ♀. Goon Goona. May 4 (no. 1920).
b. ♀. Goon Goona. May 9 (no. 1150).
c. ♂. Goon Goona. May 4 (no. 955).
d. ♂. Facado. May 2 (no. 1288).
e. ♂. Between Facado and Addigerat. May 4 (no. 1258).
f. ♂. Addigerat. May 4 (no. 1756).

Long. al.	Caud.	Culm.	Tars.	Dig. med.
3″ 3‴–3″ 6‴	2″ 1‴–2″ 7‴	6½‴–7‴	10½‴–11‴	8‴ . . . ♂.
2 10	2 0	5½ –6	9	6½ . . . ♀.

All the males in Mr. Jesse's collection are in the winter dress, quite similar to the females, but having the lesser upper wing-coverts along the humerus bright yellow.

The remiges are also black, edged externally with pale whitish brown. The bill varies much in coloration. In one male the bill is totally black; in another only the maxilla is black, the mandibula pale brownish; in a third male the bill is pale horny brown. The females are considerably less in size than the males.

[Iris brown; beak dark brown; legs and feet dark brown.

Beak in the female lighter. Met with in flocks. Did not come across this species anywhere else during my stay in the country.—*W. J.*]

125. Vidua verreauxi, Cass.

Vidua verreauxi, Cassin, Proc. Acad. Phil. p. 56 (1850, June); Finsch & Hartl. Vögel Ostafr. p. 426.
—— *sphaënura* (Verr.), Bp. Consp. i. p. 449 (1850, July).
—— *paradisea*, Rüpp. Syst. Uebers. p. 77. no. 270; Heugl. Syst. Uebers. no. 390.
Steganura paradisea, var. *australis*, Heugl. Fauna d. Roth. Meer. no. 161; Brehm, Habesch, p. 217. no. 91.

a. ♂. Koomaylee. May 25 (no. 1522).

Long. al.	Caud.	Culm.	Tars.	
2″ 11‴	8½″	4½‴	8‴	
2 10	—	4	7½	*paradisea*. Damaraland.

An old male in full dress, having the collar on the nape ochre-fulvous, not cinnamomeous brown, as in the true *V. paradisea*, Linn.

[This specimen was given to me as a skin by Capt. Street, A.F.F.; he obtained several of the birds about Koomaylee in March. I saw some of them in the flesh in his tent, but none alive. He spoke of them as frequenting carcasses, probably feeding on maggots. The sex I am not answerable for.—*W. J.*]

126. Vidua principalis (Linn.).

Vidua erythrorhyncha (Sws.), Rüpp. Syst. Uebers. p. 77. no. 271; Heugl. Syst. Uebers. no. 391.
—— *principalis*, Heugl. Fauna d. Roth. Meer. no. 160; Brehm, Habesch, p. 217. no. 90; Finsch & Hartl. Vögel Ostafr. p. 428.

a. ♂. Bejook. July 14 (no. 1816).
b. ♂. Bejook. July 16.
c. ♂. Bejook. July 18 (no. 1188).
d. ♂. Bejook. July 18 (no. 841).

Long. al.	Caud.	Culm.	Tars.	
2″ 7‴	7″ 4‴–11″ 0‴	4‴	8‴	
2 7 –2″ 10‴	6 6 –7 9	4	7½	. . . Angola.
2 6	—	4	7	. . . Gambia.
2 9	4 7	4	7½	. . . Damaraland.

All the specimens in Mr. Jesse's collection are males in full dress, and have the base of the mentum (angulus mentalis) black, agreeing in that respect with specimens from the Gambia and from the Damara country (Andersson's collection). Whether the white-

chinned specimens form a different species is questionable. In a collection of birds from Benguela, made by Dr. Welwitsch, I saw white-chinned specimens, but also specimens which showed in the extreme angle of the chin some black feathers. Very likely this difference is only a sign of age or season. Otherwise there is not the slightest difference, either in size or coloration; young birds are in every respect inseparable.

Linnæus's *Emberiza principalis* (Syst. Nat. p. 313) refers to the white-chinned form, which was renamed by Dr. Hartlaub *V. decora* (Ibis, 1862, p. 340).—*O. F.*

[Iris dark brown; beak orange; legs and feet black.

The only four specimens I procured were in July, and single birds at Kokai at the end of June. I saw a small flock. I did not meet with this bird anywhere else during my stay in the country.—*W. J.*]

Fam. FRINGILLIDÆ.

127. Habropyga rhodopyga (Sundev.).

Estrelda rhodopyga, Sund. Öfvr. Akad. Förh. 1850, p. 126.
—— *rhodoptera* (! laps. cal.), Bp. Consp. p. 459.
Habropyga frenata, Ehrb. Cab. Mus. Hein. i. p. 169.
Estrelda leucotis, Heugl. Journ. f. Orn. 1862, p. 29.
—— *frenata,* Heugl. Journ. f. Orn. 1868, p. 8.

a. ♀. Bejook. July 17 (no. 829).

Long. al.	Caud.	Culm.	Tars.
1″ 10‴	1″ 6‴	3½‴	6‴

A rare species. Von Heuglin obtained a single pair in the vicinity of Keren, in the Bogos country, and named them *Estrelda leucotis.* I have inspected the type specimens. Drs. Hemprich and Ehrenberg collected the species in Abyssinia and Nubia; Professor Hedenborg in Sennaar.—*O. F.*

[Beak nearly black; legs blue-grey.

The only specimen procured of this species.—*W. J.*]

128. Uræginthus phœnicotis (Sws.).

Estrilda bengalus (! L.), Rüpp. Syst. Uebers. p. 77. no. 275; Heugl. Syst. Uebers. no. 396.
Uræginthus phœnicotis, Heugl. Fauna d. Roth. Meer. no. 166.
Pytelia phœnicotis, Finsch & Hartl. Vögel Ostaf. p. 447.

a. ♂. Senafé. May 22 (no. 943).
b. ♀. Senafé. May 22 (no. 939).
c. ♀. Senafé. May 22 (no. 1725).
d. Senafé. May 22 (no. 1684).
e. ♂. Senafé. May 25.
f. Goon Goona. May 9.

g. ♀. Bejook. July 16 (no. 1500).
h. ♀. Bejook. July 16 (no. 1789).

Long. al.	Caud.	Culm.	Tars.
1″ 11½‴–2½‴	2″ 1‴–2″ 3‴	4½‴–5‴	7‴ . . . ♂, ♀.

All the female specimens want the carmine ear-spot; the brown colour of the hind neck reaches to the sides of the jugulum. The sexes are similar in size.

Southern specimens from the Damara country in the Bremen Museum agree in every respect.—*O. F.*

[Iris salmon-pink; beak crimson, tip black.

This, the first specimen of this species, I obtained in May at Goon Goona, five others at Senafé in the same month, and two at Bejook (Anseba), July 16, 1868. I did not meet with the species anywhere else.—*W. J.*]

129. Pytelia minima (Vieill.).

Estrelda minima, Rüpp. Syst. Uebers. p. 77. no. 276; Heugl. Syst. Uebers. no. 397.
Lagonosticta minima, Heugl. Fauna d. Roth. Meer. no. 165; Brehm, Habesch, p. 217. no. 92.
Pytelia minima, Finsch & Hartl. Vögel Ostafr. p. 444.

a. ♂. Maragaz. July 27 (no. 514).
b. ♀. Maragaz. July 27 (no. 1299).
c. ♂. Bejook. July 15 (no. 1686).
d. ♀. Bejook. July 15 (no. 1056).

Long. al.	Caud.	Culm.	Tars.
1″ 10‴–1″ 11‴	1″ 4‴	c. 4‴	c. 7‴ . . . ♂, ♀.—*O. F.*

[Iris pale burnt sienna; beak deep crimson, tip black.

Did not procure or observe this species, except on the Anseba; four specimens in all.—*W. J.*]

130. Pytelia citerior, Strickl.

Pytelia citerior, Contr. to Ornith. 1852, p. 151.
Estrilda elegans, Rüpp. Syst. Uebers. p. 77. no. 278; Heugl. Syst. Uebers. no. 400.
Pytelia citerior, Heugl. Fauna d. Roth. Meer. no. 162.
Zonogastris citerior, Heugl. Journ. f. Orn. 1868, p. 19.

a. ♂. Bejook. July 17 (no 1176).
b. ♂. Rairo. August 13 (no. 11).

Long. al.	Caud.	Culm.	Tars.
2″ 2‴	1″ 7‴–1″ 9‴	5‴–6‴	7‴–7½‴

The late Mr. Strickland has pointed out the differences between the north-eastern form, which he calls *P. citerior*, and the southern *P. melba*, Linn., the latter being chiefly distinguished by the less extension of the red on the front, and having the belly and sides spotted with white, whereas in *P. citerior* the belly shows narrow transversal lines. Having no southern specimens for comparison, I can only remark that the specimens in Mr. Jesse's collection agree better with the description given by

Mr. Strickland of the southern *P. melba* than with that of his *P. citerior*. In the male, no. 11 (*b*), the white spots on the breast and sides are very distinct, less distinct in the specimen *a*, which shows the under parts with more transverse lines, like a specimen from West Africa in the Bremen Museum. It seems, therefore, doubtful whether *P. citerior* is distinct from *P. melba*.—*O. F.*

[Iris pale sienna; beak pale coral; legs and feet grey.

I only met with this species in the highlands on the Anseba, and at Rairo on the Lebka. Mr. W. T. Blanford, I believe, shot one one day with me in the plain of Koomaylee.—*W. J.*]

131. Spermestes cantans (Linn.).

Estrilda cantans, Rüpp. Syst. Uebers. p. 77. no. 279.
Coccothraustes cantans, Heugl. Syst. Uebers. no. 389.
Uroloncha cantans, Heugl. Fauna d. Roth. Meer. no. 164; Finsch & Hartl. Vögel Ostafr. p. 435. no. 228.

a, a. ♂, ♀. River Amba. August 19.
b. ♀. Amba. August 19.
c. ♂. Bejook. July 15 (no. 1741).
d. Waliko. July 20 (no. 1856).

Both sexes are alike.—*O. F.*

[Iris pale brown; beak slate-colour.

Not met with while with the expedition, but procured at Amba, in the plain, August 19, 1868.

I saw the nest of this species at Waliko, and shot the bird as it came out, but there were no eggs: this was on the 20th of July 1868. The nest is very large, say 1 ft. by 9 in. by 9 in., and is composed of fine grasses, the ends sticking out, not woven together as in that of the Weaver-bird. In form it resembles that of the Water-Ousel (*Cinclus aquaticus*), having a hole at one end; it was situated in a mimosa bush about eight feet from the ground.—*W. J.*]

132. Xanthodina dentata, Sundev.

Xanthodina dentata, Sundev. Öfers. Akad. Förh. 1850, p. 127.
Passer lunatus, Heugl. Syst. Uebers. no. 427.
Xanthodina dentata, Heugl. Journ. f. Orn. 1868, p. 81.
Petronia albigularis, Brehm, Nauman. 1856, p. 377.
Xanthodina albigularis, Heugl. Journ. f. Orn. 1868, p. 82.

a. ♂. Bejook. July 18 (no. 661).
b. ♂. Waliko. July 21 (no. 1032).
c. ♂. Waliko. July 24 (no. 1130).
d. ♀. Gelamet. August 10 (no. 63).

Long. al.	Caud.	Culm.	Tars.
2″ 10	1″ 5‴–1″ 6½‴	4¾‴–5¼‴	7½‴ . . . . . ♂.
2 9	1 6½	5¼	7½ . . . . . ♀.

Dr. Von Heuglin, in his 'Synopsis der Vögel N.-O. Africas,' suggests that *X. albigularis*, Brehm, may be nothing else than the younger stage of *X. dentata*, as it differs only in the absence of the yellow spot in the centre of the throat. The specimens in the collection of Mr. Jesse confirm this opinion with more certainty. All are in plumage like *X. albigularis*, having the middle of the chin and throat white, except the male, no. 1032, which shows one or two pale yellowish feathers on the throat, just developing, proving that a change in the plumage is going on. *X. dentata* agrees in coloration with the southern *X. flavigula*, Sundev., differing only in the considerably smaller size.—*O. F.*

[Iris pale brown; beak, lower mandible pink, upper darker, nearly black; legs and feet blue-grey.

I procured specimens from Bejook and Waliko, Anseba river, and Gelamet on the Lebka; it was also plentiful at Rairo.—*W. J.*]

133. Xanthodina pyrgita, Heugl.

Xanthodina pyrgita, Heugl. Journ. f. Orn. 1862, p. 30; *id. ib.* 1868, p. 80.

a. ♂. Kokai. July 13 (no. 839).

Agrees with the description given by Dr. Von Heuglin. I have examined the type specimen from Keren. Allied to the South-African *X. flavigula*, Sundev., which is distinguished at once by the broad pale superciliary stripe and larger size.

Long. al.	Caud.	Culm.	Tars.		
3″ 0‴	2″ 5‴	5½‴	8‴ . . .	*X. pyrgita.*	
3 5	2 4	5½	8½ . . .	*X. flavigula.*	Damaraland.—*O. F.*

[Iris brown.

The only specimen I procured; nor did I observe it elsewhere, though I may possibly have passed it over.—*W. J.*]

134. Passer swainsoni (Rüpp.).

Pyrgita swainsonii, Rüpp. Neue Wirbelth. t. 33. f. 2; *id.* Syst. Uebers. p. 78. no. 295; Heugl. Syst. Uebers. no. 428.

—— *simplex*, Heugl. Fauna d. Roth. Meer. no. 169; Brehm, Habesch, p. 218. no. 95.

—— *swainsoni*, Finsch & Hartl. Vögel Ostafr. p. 450. no. 239.

a. ♂. Senafé. May 25.
b. ♀. Senafé. May 25 (no. 143).
c. ♀. Senafé. May 25.
d. ♂. Eylet. June 29 (no. 1235).
e. ♀. Kokai. July 12 (no. 1226).

Long. al.	Caud.	Culm.	Tars.
3″ 2‴–3″ 3‴	2″ 3‴–2″ 6‴	5¼‴	9‴.

Both sexes are alike; the females in general paler. An indistinct white cross band on the wing.

Synonymous are *P. simplex*, Sws. (*nec* Licht.), from West, and *P. diffusa*, Smith, from Southern Africa.—*O. F.*

[Iris dark brown; beak nearly black; legs and feet brown.

Obtained at Senafé, Eylet, and Kokai, 25th May, 29th June, 12th July, 1868.—*W. J.*]

135. Crithagra xanthopygia (Rüpp.).

Serinus xanthopygius, Rüpp. Neue Wirbelth. t. 35. f. 1; *id.* Syst. Uebers. p. 76. no. 288.
Fringilla xanthopygia, Heugl. Syst. Uebers. no. 410.
Poliospiza uropygialis, Heugl. Fauna d. Roth. Meer. no. 174.
Serinus xanthopygius, Heugl. Journ. f. Orn. 1868, p. 90.

a. ♂. Kokai. August 10 (no. 95).

[I only procured this one specimen between Kokai and Gelamet at the time I saw three others, but did not observe this species anywhere else during my journey.—*W. J.*]

136. Crithagra striolata (Rüpp.).

Pyrrhula striolata, Rüpp. Neue Wirbelth. t. 37. f. 1; *id.* Syst. Uebers. p. 79. no. 317; Heugl. Syst. Uebers. no. 453; Brehm, Habesch, p. 218. no. 102.
Serinus striolatus, Heugl. Journ. f. Orn. 1868, p. 94.

a. ♂. Senafé. April 24 (no. 427).

Congeneric with *Cr. sulphurata*, Sws., and nearest to *Cr. albigularis*, Smith; both from South Africa.—*O. F.*

[Iris brown; beak horn-colour; legs and feet horn-colour.

The only specimen seen during my stay in the country.—*W. J.*]

137. Emberiza flaviventris (Vieill.).

Emberiza flavigastra (!), Rüpp. Atlas, t. 25; Syst. Uebers. p. 78. no. 298; Heugl. Syst. Uebers. no. 432; *id.* Journ. f. Orn. 1868, p. 75; Finsch & Hartl. Vögel Ostafr. p. 458. no. 245.

a. ♂. Senafé. May 22 (no. 598).
b. ♂. Rairo. August 13 (no. 16).
c. ♂. Rairo. August 13 (no. 1769).
d. ♀. Rairo. August 13 (no. 542).
e. ♀. Rairo. August 14 (no. 81).
f. ♀. Rairo. August 14 (no. 866).

Long. al.	Caud.	Culm.	Tars.	
2″ 9‴–3″ 0‴	2″ 4‴–2″ 7‴	5‴	7‴ 8‴	
3 0 –3 4	2 6 –2 9	5	7 8½	. . . South Africa.

The north-eastern *E. flavigaster*, Rüpp., is inseparable from the southern *E. flavi-*

ventris, which is said to be distinguished by its larger size. The measurements given above will prove that in this respect an exact separation is impossible.

Young birds in the collection of Mr. Jesse have a fulvous-brown stripe along the head instead of a white one, and dark shaft-stripes on the back.—*O. F.*

[Iris brown; beak, upper mandible darkish horn-colour, lower mandible pinkish; legs and feet yellowish grey.

One specimen procured at Senafé, 22nd May 1868; two others (♂ & ♀), shot together (1769 & 542) on 13th August, have the general plumage much lighter and the marking less distinct; both heads brownish, instead of black, with white stripes, that of the male darkest. That these were birds of the year I doubt, though possibly they may have been bred the season previously. I did not meet with this species in the plains.—*W. J.*]

138. Emberiza septemstriata, Rüpp.

Emberiza septemstriata, Rüpp. Neue Wirbelth. t. 30. f. 2; *id.* Syst. Uebers. p. 78. no. 299; Heugl. Syst. Uebers. no. 435.

Fringillaria septemstriata, Heugl. Fauna des Roth. Meer. no. 176; Brehm, Habesch, p. 218. no. 96.

—— *tahapisi*, Smith.

Polymitra capistrata, Cab. Mus. Hein. i. p. 129.

a. ♂. Sahati. June 24 (no. 1830).
b. ♂. Sahati. June 24 (no. 1243*).
c. ♂. Eylet. June 26 (no. 788).
d. ♂. Ain. July 6 (no. 881).
e. ♂. Ain. July 6.
f. ♂. Ain. July 16 (no. 59).
g. ♀. Ain. July 16.
h. ♂. Maragaz. July 27 (no. 1041).
i. ♂. Maragaz. July 28 (no. 1029).
k. ♂. Between Waliko and Bejook. July 20 (no. 989.

There is no difference between specimens from the north-east and south of the continent. The latter Dr. Cabanis has separated s. n. *capistrata*, although they were already named beforehand *Fr. tahapisi* by Dr. Smith. Dr. Cabanis distinguishes *E. capistrata* as having the cinnamomeous margins on the quills less visible or nearly wanting; but in the large series of Mr. Jesse are specimens which agree in this respect, and prove that this character is only a difference of age, and therefore without specific value.

I have examined the type specimens of *Fr. capistrata* from Caffirland in the Berlin Museum and in the Museum Heineanum.—*O. F.*

[Iris brown; beak, upper mandible dark horn—lower mandible, base yellow, tip horn-colour; legs and feet dirty yellowish white.

Met with this species first at Sahate in flocks; it was plentiful right up to the Anseba.—*W. J.*]

Fam. ALAUDIDÆ.

139. Galerita cristata (L.).

Galerita cristata, Rüpp. Syst. Uebers. p. 78. no. 309; Heugl. Syst. Uebers. no. 443; *id.* Fauna des Roth. Meer. no. 179; *id.* Journ. f. Ornith. 1868, p. 223.
—— *abyssinica,* Bp. Consp. p. 245; Brehm, Habesch, p. 218. no. 98.
—— *senegalensis,* Hartl. W. Afr. p. 153.
—— *cristata,* Finsch & Hartl. Vögel Ostafr. p. 460. no. 246.

a. ♂. Senafé. August 24 (no. 154).
b. ♂. Amba. August 18 (no. 96).
c. ♂. Amba. August 21.
d. ♀. Massuah. August 23 (no. H).

A careful comparison of these birds with European specimens has convinced me that there is no specific difference, and that the African Crested Lark varies as much as our European one. The male *c* agrees in every respect with a German specimen, also the female *d*; the male *b* has a rather shorter and straighter bill, a broader moustache-stripe, whereas in the male *a* the ground-colour of the under surface is rather washed with ferruginous, the upper parts are also darker brown. Specimens from the highlands of Abyssinia (Bremen Museum) are identical. Von Heuglin, who also unites with *G. cristata* the *G. lutea* of Brehm, an apparently distinct species, is wrong in saying that the African Crested Lark is always smaller in size, as the following table of measurements will show at once:—

Long. al.	Caud.	Culm.	Tars.	Dig. intern.	Dig. post. cum ung.	
3″ 8‴	2″ 0‴	6‴	10½‴	6½‴	c. 4‴	c. 5‴ . . . *a.*
3 8	2 1	6½	11	—	4	4½ . . . *b.*
4 0	2 1	7½	11½	7	4	5½ . . . *c.*
3 7	2 0	7	12	7	4	5 . . . *d.*
3 8–10	2 1	6½	11	6½	4	5 . . . Germany.—*O. F.*

[Iris brown; beak horn-colour; legs and feet flesh-colour.

Procured or observed at Zoulla, in March; Senafé, April; Amba and Massowah, in August; so that it seems well distributed at all periods of the year.—*W. J.*]

140. Ammomanes deserti (Licht.).

Ammomanes deserti, Licht. Verz. Doubl. 1823, p. 28.
Alauda isabellina, Temm. Pl. Col. 244. f. 2.
Melanocorypha isabellina, Rüpp. Syst. Uebers. p. 78. no. 307; Heugl. Syst. Uebers. no. 441.
Ammomanes deserti, Cab. Mus. Hein. i. p. 125; Brehm, Habesch, p. 218. no. 99.

a. ♂. Koomaylee. June 3.
b. ♂. Amba. August 18 (no. 37).
c. ♂. Amba. August 19.
d. Amba. August 21 (G).
e. ♂. Amba. August 21 (K).

The specimen *a* has the back pale fulvous, whereas the other specimens have a greyish-isabel tinge on the back, and are in general brighter in colour. All these specimens, shot in the month of August, are in moult, and show more or less obsolete dark spots on the throat.

Long. al.	Caud.	Culm.	Tars.
3″ 6‴–3″ 8‴	2″ 1‴–2″ 2‴	$5\frac{1}{2}$‴–$6\frac{1}{2}$‴	10‴

A nearly allied species is *A. cinctura*, Gould (=*pallida*, Ehrb.), distinguished by the brighter cinnamon-colour of the upper parts and the black apical spot of the tail-feathers. A specimen from the Cape Verde Islands (Dohrn) agrees with an Algerian one, but is brighter above, and has the jugulum tinged strongly with fulvous, whereas in the Algerian specimen those parts show only a faint fulvous tinge.—*O. F.*

[Legs and feet rufous grey.

One specimen obtained at Koomaylee on June 3rd, 1868; not plentiful there, more so at Amba in August.—*W. J.*]

141. Alæmon jessei, sp. nov.

Certhilauda desertorum, Heugl. Ibis, 1859, p. 343.

Alæmon desertorum, Heugl. Fauna d. Roth. Meer. no. 183; *id.* Journ. f. Orn. 1868, p. 231 (spec. ex Arabia); Finsch & Hartl. Vögel Ostafr. p. 465. no. 248, et p. 869.

a. ♂. Zoulla. June 9.
b. ♂. Zoulla. June 9.
c. ♂. Zoulla. June 9.
d. ♀. Zoulla. June 9.

Supra pallide griseo-brunnescens, plumis medio distinctius fuscis; regione parotica striolaque mystacali brevi, lata, fuscis; gula, loris, superciliis et capitis lateribus infra oculos albis; pectore in fundo albo maculis rotundatis fuscis confertim guttato; abdomine albo; remigibus majoribus fuscis, basibus pogonii interni albis, minoribus fuscis basi et apice late albis; scapularibus dorso concoloribus; tectricibus alarum pallide fuscis, pallidius marginatis; subalaribus albis; rectricibus duabus intermediis pallide fuscis, sequentibus fusco-nigricantibus, extima pogonio externo alba; rostro pallide brunnescente, tomiis et basi albidis; pedibus dilute griseis.

The surface of the head and all the upper parts pale greyish brown, each feather somewhat darker brown in the centre; the feathers on the head with more distinct dark-brown shaft-stripes; lores and a conspicuous superciliary stripe white, like the sides of the head, chin, and upper throat; on the ears a blackish spot, extending to the tempora; from the angle of the mouth descends a broad blackish moustache-stripe; before the eye a small blackish spot; the under parts white, washed strongly with pale brown on the sides; the feathers on the throat marked with small blackish-brown spots, those of the jugulum and breast with large cordiform spots of the same

colour, primaries brownish black, the first, second, and third white on the basal third of the inner web, on the remainder as well as on the secondaries the white extended nearly to the basal half on both webs; the seventh to the ninth primaries tipped with white; the secondaries brownish black with a broad white apical margin, and narrow pale brownish margins on the outer web; the innermost, which are prolonged secondaries (tertiariis *auct.*), pale greyish brown, the same as the upper quill-coverts, with narrow paler margins; the coverts of the primaries dark brown, those of the secondaries of the same colour, but tipped on the end with white; the under wing-coverts white; the two middle tail-feathers greyish brown, somewhat darker than the back, with paler margins externally; the remainder of the tail-feathers brownish black; the outermost white on the outer web. Bill pale horn-grey; edges of commissure whitish; legs pale greyish yellow.

The description is taken from the specimen *a*, an undoubtedly old male. The two other males agree exactly, except the *c*, which is considerably smaller in size. The female, *d*, is similar, but shows the dark spots on the breast a little smaller.

Long. tota.	Al.	Caud.	Culm.	Tars.	Dig. med.	
c. 8½″	4″ 10‴	3″ 5‴	10½‴	14½‴	6½‴	. . . ♂. *a.*
—	4 7	3 2	12½	15	7	. . . ♂. *b.*
—	4 0	2 8	9½	14	6	. . . ♂. *c.*
—	4 3	2 10	10	14	5½	. . . ♀. *d.*

Differs from the allied *A. desertorum*, Stanl. (*A. bifasciata*, Temm.), in being above decidedly pale greyish brown, not pale ferruginous or isabelline, in having the middle of the secondaries (to a breadth of from 10–12‴) black, whereas in *A. desertorum* the secondaries are white with a black cross band of about only from 4–5‴ in breadth, and chiefly in having the jugulum and breast marked with large cordiform spots, there being in *A. desertorum* some narrow dark spots visible only on the jugulum, and these being sometimes wanting altogether.

Dr. von Heuglin has undoubtedly confounded this species with the true *A. desertorum*; for he remarks that the specimens collected by him along the shores of the Red Sea are darker. A specimen from Arabia in the Berlin Museum (collected by Hemprich and Ehrenberg), which Von Heuglin considers to be the young bird, belongs clearly also to *A. jessei*.

I name the species after my friend Mr. William Jesse, the zealous zoologist to the Abyssinian expedition, who has enriched in so many respects our knowledge of the avifauna of the Abyssinian coast-lands.—*O. F.*

[I only observed this species at Zoulla and between Ain and Amba; at the latter place I could not shoot any. They run with great swiftness; and their flight is singular, not unlike that of a Ring-Plover.—*W. J.*]

142. Coraphites melanauchen, Cab. (Plate XXVI.)

Coraphites melanauchen, Cab. Mus. Hein. i. p. 124; Heugl. Journ. f. Orn. 1868, p. 219; Finsch & Hartl. Vögel Ostafr. p. 469.

? *Pyrrhulalauda crucigera*, Rüpp. Syst. Uebers. p. 79. no. 313; Heugl. Syst. Uebers. no. 449.

Coraphites nigriceps, Heugl. Fauna d. Roth. Meer. no. 185.

Pyrrhullauda crucigera, Brehm, Habesch, p. 219. no. 101.

a–e. ♂. Massowah. August 23.
f, g. ♀. Massowah. August 23.
h. ♂. River Amba. August 18.

A well-marked species, distinguished from the nearly allied *C. nigriceps*, Gould, at once by the large black spot on the hind neck, which in all the male specimens in Mr. Jesse's collection is well defined; the white on the forehead is also more restricted, and the outer web of the first tail-feather white. The female wants the black neck-spot; the head, hind neck, and ear-region is isabelline brown, like the back; the sides of the neck, lores, and under parts whitish, washed with pale brown on the sides and breast; feathers of the jugulum and breast with brownish shaft-stripes; otherwise similar to the male.

Dr. Cabanis remarks (Journ. f. Orn. 1868, p. 219, note) that *C. nigriceps*, Gould, is not the same as *C. frontalis*, Licht. (Bp. Consp. p. 512), and that my *C. modesta* (Journ. f. Orn. 1864, p. 413), from the Canaries, is the female of *C. nigriceps*. I have not had an opportunity of comparing specimens from the west and north-east, but must declare that a skin from the Cape Verde Islands (collected by Dr. Dohrn), and therefore the true *C. nigriceps*, Gould, agrees in every respect with the descriptions given by Bonaparte and Heuglin of *C. frontalis*. As regards my *C. modesta*, based upon a single female specimen, it seems that this species is nearer to *C. melanauchen* than to *C. nigriceps*.—*O. F.*

[Common all over the plains from Zoulla to Massowah, but nowhere further inland. Seen from early in March to late in August, probably stops all the year in the plains. —*W. J.*]

Fam. MUSOPHAGIDÆ.

143. Colius macrourus (Linn.).

Colius senegalensis, Rüpp. Syst. Uebers. p. 79. no. 318; Heugl. Syst. Uebers. no. 454.

a. ♂. Takonda. May 17 (no. 1412).
b. ♂. Kokai. July 9 (no. 1207).
c. ♂. Mahaber. July 9 (no. 1304).
d. ♂. Mahaber. July 9 (no. 1559).
e. ♂. Mahaber. July 9 (no. 1207).
f. Rairo. August 14.
g. ♂. Rairo. August 16 (no. 20).

[Iris brown, skin round the eye dirty crimson; beak, upper mandible dark crimson base, next a blue line, then tip black, lower mandible black; legs and feet dirty mauve, toes reversible.

No. 1412, the first, was obtained as a skin. I afterwards procured six specimens, from which I drew my notes. Localities: Kokai, Mahaber, 9th July; Rairo 14th August, 1868; found in flocks. Contents of stomach fruit and berries. In no. 1412 the contents of the stomach were mimosa-seeds. Not observed in any other locality by me.—*W. J.*]

144. Colius leucotis, Rüpp.

Colius leucotis, Rüpp. Syst. Uebers. p. 79. no. 319; Heugl. Syst. Uebers. no. 455; Finsch & Hartl. Vögel Ostafr. p. 472. no. 253.

—— *leuconotus,* Brehm, Habesch, p. 219. no. 103.

a. ♀. Dolo. May 16 (no. 662).
b. ♀. Bejook. July 16 (no. 1674).
c. ♀. Bejook. July 16 (no. 764).
d. ♀. Bejook. July 17 (no. 1124).
e. ♀. Bejook. July 17 (no. 1527).
f. ♂ Bejook. July 18 (no. 1893).

The ear-spot is not distinctly white, as the specific name denotes, but pale brownish. —*O. F.*

[Iris pale cobalt; beak, upper mandible dark horn-colour with a light patch at the base, lower mandible flesh-colour; legs and feet coral-red.

I obtained every specimen but one at Bejook, where they were plentiful; they are very active, climbing like parrots and clinging like Tits (*Parus*), and keep themselves well concealed. No. 662 was given me by Mr. W. T. Blanford, and was obtained by him at Dolo, in Tigré, at an elevation of 7000 feet. I did not meet with this species elsewhere.—*W. J.*].

145. Corythaix leucotis, Rüpp.

Corythaix leucotis, Rüpp. Neue Wirbelth. t. 3.

Turacus leucotis, Rüpp. Syst. Uebers. p. 80. no. 326; Heugl. Syst. Uebers. no. 463; Brehm, Habesch, p. 219. no. 104.

a. ♂. Taconda Pass. April 21 (no. 195).
b. ♂. Taconda Pass. April 21 (no. 476).
c. ♀. Taconda Pass. April 21 (no. 692).
d. ♂. Waliko. August 2 (no. 609).
e. ♂. Bejook. July 18 (no. 133).
f. ♂. Bejook. July 18 (no. 1994).

[Iris brown; beak scarlet, and skin round the eye the same; legs and feet very nearly black.

Did not observe this species lower down the passes to Senafé than Rayrayguddy. Localities: Senafé (behind the rock in the valley beneath), not plentiful; Anseba,

common. Flight very light and noiseless; call rather noisy; runs up and down lateral branches like a Parrot, "hand over hand." Contents of stomach fruit.—*W. J.*]

146. Schizorhis zonura, Rüpp.

Chizærhis zonura, Rüpp. Neue Wirbelth. t. 4; *id.* Syst. Uebers. p. 80. no. 327; Heugl. Syst. Uebers. no. 465; Brehm, Habesch, p. 219. no. 105.

a. ♂. Senafé. May 22 (no. 604).
b. ♂. Senafé. May 22 (no. 1183).
c. ♂. Senafé. May 22 (no. 793).
d. ♀. Senafé. May 22 (no. 1309).
e. ♀. Senafé. May 22 (no. 1975).
f. ♀. Maragaz. July 29 (no. 1351).
g. ♀. Waliko. July 23 (no. 1859).
h. ♂. Waliko. August 2.
i. ♂. Bejook. July 18 (no. 649).

[Iris brown; beak greenish yellow; legs and feet dark grey.

I met with this bird only at Senafé, in the valleys, and on the Anseba. In August I shot well-fledged young, able to fly. They are excessively noisy, especially when two alight on the same tree; the note resembles a derisive roar of laughter more than any thing else I can think of. Contents of stomach fruit.—*W. J.*]

Fam. BUCEROTIDÆ.

147. Buceros nasutus (L.).

Toccus nasutus, Rüpp. Syst. Uebers. p. 79. no. 323; Heugl. Syst. Uebers. no. 459.
—— *pœcilorhynchus*, Lafr.; Heugl. Syst. Uebers. no. 462; Heugl. Fauna d. Roth. Meer. no. 189; Brehm, Habesch, p. 219. no. 106.
Buceros nasutus, Finsch & Hartl. Vögel Ostafr. p. 486. no. 263.

a. ♀. Ain. July 7 (no. 1949).
b. ♀. Ain. July 7 (no. 502).
c. ♂. Between Ain and Mohaber. July 7 (no. 1171).
d. ♂. Mohaber. July 8.
e. ♂. Mohaber. July 8 (no. 1818).
f. ♀. Mohaber. July 8 (no. 1133).

There cannot be any doubt that *B. pœcilorhynchus* is the female of this species, although von Heuglin maintains the contrary, and thinks the latter distinct. All the females in the collection of Mr. Jesse agree with the so-called *B. pœcilorhynchus*, whereas the black-billed ones are males. Many specimens from Damaraland, which I inspected, in the collection of the late Mr. Andersson gave similar results.—*O. F.*

[Iris brown; beak black at base, with three diagonal stripes of white at the base of

the lower mandible, base of upper mandible a large white patch, end of beak dirty red; legs and feet nearly black.

Beak of male longer than that of female, and entirely black except a white patch on the base of the upper mandible much smaller than in the female.

Found from Ain to the Anseba; note so variable as to induce me to expect some fresh bird, a source of constant trouble and disappointment. I have seen this bird hawking insects in a very awkward manner; it is also a fruit-eater. Did not meet with this species while with the troops.—*W. J.*]

148. Buceros erythrorhynchus, Temm.

Toccus erythrorhynchus, Rüpp. Syst. Uebers. p. 79. no. 322; Heugl. Syst. Uebers. no. 458; *id.* Fauna d. Roth. Meer. no. 190; Brehm, Habesch, p. 220. no. 108.

Buceros erythrorhynchus, Finsch & Hartl. Vögel Ostafr. p. 491. no. 266.

a. Rayrayguddy. May.

[The only specimen procured; others seen in the vicinity of Senafé.—*W. J.*]

149. Buceros flavirostris, Rüpp.

Buceros flavirostris, Rüpp. Neue Wirbelth. t. 2. f. 2; *id.* Syst. Uebers. p. 79. no. 324; Heugl. Syst. Uebers. no. 461; *id.* Fauna d. Roth. Meer. no. 191; Finsch & Hartl. Vögel. Ostafr. p. 490. no. 265.

Toccus elegans, Hartl. Proc. Zool. Soc. 1865, p. 86, t. 4.

a. ♂. Undel Wells. April 6.
b. ♂. Between Sooroo and Undel Wells. April 5 (no. 581).
c. Rayrayguddy.
d. ♀. Between Sooroo and Undel Wells. April 6 (no. 422).

In some specimens there is a black longitudinal stripe on the upper mandible; in other specimens the bill is uniform orange-yellow tipped with black. In the white markings on the wings and the black tail-bands there is also a great variation, also in the extent of the white apical spots on the tectrices, which are sometimes margined with black. . The incorrectness of the figure in Rüppell's 'Neue Wirbelthiere,' and the shortness of his description, were the causes of Dr. Hartlaub's publishing the western *T. elegans* as a new species. I have examined the type specimens in Frankfort since, and the fine series in Mr. Jesse's collection, and am convinced that both species are one and the same.—*O. F.*

[Iris yellowish white, eyelid formed like a horny shade capable of projection over the eye, eye-lashes strong bristles; beak bright yellow, base almost orange, lower edge of lower mandible black-brown, from fork of lower mandible to the tip black-brown; legs black.

Immediately under the throat a space of bare skin, the upper half of which had a slightly bluish tint, the remainder flesh-colour.

The female of this species is a fourth less than the male, with a smaller beak; the skin under the chin is black instead of coloured. The anatomical structure of this bird is singular; each muscle stands well separated from the others; and between the skin and the body is an open space, the first not adhering to the latter, as in most birds, but attached by a number of threads or ligaments. It appears possible that this vacant space can be filled with air, especially as the flight of this bird is singularly light. These peculiarities apply also to *Bucorax abyssinicus*, and, I believe, to others of the family. Contents of stomach seeds and stones of fruit and small coleoptera. Did not meet with this bird higher up than Rayrayguddy.—*W. J.*]

150. Buceros limbatus, Rüpp.

Buceros limbatus, Rüpp. Neue Wirbelth. t. 2. f. 1; *id.* Syst. Uebers. p. 79. no. 325; Heugl. Syst. Uebers. no. 460; Brehm, Habesch, p. 220. no. 107.

a. ♀. Senafé. May 25.
b. Senafé. May 25.

[Iris brown.

I only obtained two specimens of this species near Senafé, towards Rayrayguddy, and, being at the time much engaged with preparations for returning to Zoulla, had no time to make further notes. I never obtained or saw this bird afterwards in Bogos or elsewhere.—*W. J.*]

151. Tmetoceros abyssinicus (Gmel.).

Tragopan abyssinicus, Rüpp. Syst. Uebers. p. 79. no. 320; Heugl. Syst. Uebers. no. 456.
Bucorax abyssinicus, Brehm, Habesch, p. 220. no. 109.
Tmetoceros abyssinicus, Finsch & Hartl. Vögel Ostafr. p. 480. no. 259.

a. ♂. Facado. May 2 (no. 517).
b. ♀. Facado. May 2 (no. 1268).

The female has the casque more developed than the male.

Long. al.	Caud.	Culm.	Rostr. ad rict.	Long. gal.	Altit. gal.	Tars.	Dig. inter.
19″	13″	5″ 4‴	7″ 6‴	3‴	2″ 0‴	5″ 0‴	2″ 4‴ . . ♀.
22	13½	5 10	8 6	1½	2 1	5 4	— . . ♂.—*O. F.*

[Iris brown; eyelid horny, lashes bristles; beak black, surmounted at base by a hollow casque, which appears as though broken off, leaving the hollow part exposed; a little way down the hollow portion of the casque there is a membrane across, somewhat similar to the inside of a reed-joint; skin round the eye blue and black; under throat blue with some red, in the female the same, save the red.

I found this bird at Senafé and Facado in May; Bejook on the Anseba, July, and also saw one as low down, and near the coast, as Ain in August; I never saw them regularly in the plain. It is useless to give a description of the habits of this bird, as Antinori has already done so with great accuracy, omitting, however, the bird's note, which is

Laboratory of Ornithology
159 Sapsucker Woods Road
Cornell University
Ithaca, New York 14850

very peculiar, sounding like a note from a bassoon. It is difficult to judge of the whereabouts of the bird by it, as it now sounds far, now near, as though some ventriloquist was at work. I cannot help associating the membrane in the casque with the note, though I do not know if there be any communication between the throat and the casque; a section of the head and casque, however, would decide this. I have seen this bird on trees, though seldom; it feeds principally on grubs and insects, which it digs up with its pickaxe-like beak. I rarely saw more than two together.—*W. J.*]

SCANSORES.

Fam. PSITTACIDÆ.

152. Palæornis torquatus (Bodd.).

Palæornis cubicularis, Rüpp. Syst. Uebers. p. 95. no. 335; Heugl. Syst. Uebers. no. 473.
—— *torquatus,* Heugl. Fauna d. Roth. Meer. no. 192; Brehm, Habesch, p. 220. no. 110; Finsch, Papag. ii. p. 17; Finsch & Hartl. Vögel Ostafr. p. 871. no. 457.

a. ♂. Bejook. July 14.
b. ♀. Bejook. July 15 (no. 1806).
c. ♀. Bejook. July 16 (no. 1261).
d. ♀. Bejook. July 16.

[Iris yellowish white; beak deep crimson at base, tip black.
Common on the Anseba, did not meet with it anywhere else.—*W. J.*]

153. Pionias meyeri (Rüpp.).

Psittacus meyeri, Rüpp. Atlas, t. 11; *id.* Syst. Uebers. p. 94. no. 330.
Pionus meyeri, Heugl. Syst. Uebers. no. 468; *id.* Fauna d. Roth. Meer. no. 193.
Pionias meyeri, Finsch, Papag. ii. p. 494; Finsch & Hartl. Vögel Ostafr. p. 500. no. 270.

a. Kokai. July 9 (no. 1488).
b. ♂. Kokai. July 9 (no. 560).
c. ♂. Kokai. July 10 (no. 628).
d. ♀. Kokai. July 10 (no. 518).
e. ♀. Kokai. July 11.
f. ♂. Kokai. July 11 (no. 1436).
g. ♀. Kokai. July 12 (no. 1740).
h. ♀. Waliko. July 20 (no. 1191).

[Eye brown, with an outer ring of orange-red.
Only met with by me on the Anseba.—*W. J.*]

154. Psittacula tarantæ, Stanl.

Psittacula tarantæ, Rüpp. Syst. Uebers. p. 95. no. 334; Heugl. Syst. Uebers. no. 472; *id.* Fauna des Rothen Meer. no. 195; Finsch, Papag. ii. p. 634.

a. ♂. Rayrayguddy. April 27 (no. 1329).
b. ♂. Rayrayguddy. April 15 [sex?—*W. J.*].

[Eye brown; beak rose-colour; legs and feet blackish grey.
Only seen near Senafé by me, in small flocks of from six to eight.—*W. J.*]

Fam. CAPITONIDÆ.

155. Trachyphonus margaritatus, Rüpp.

Bucco margaritatus, Rüpp. Atlas, t. 20.
Tamatia erythropyga, Hempr. & Ehrb. Symb. Phys. t. 7.
Trachyphonus margaritatus, Rüpp. Syst. Uebers. p. 95. no. 342; Heugl. Syst. Uebers. no. 483; *id.* Fauna d. Roth. Meer. no. 197; Brehm, Habesch, p. 221. no. 112; Finsch & Hartl. Vögel Ostafr. p. 506. no. 276.

a. ♂. Koomaylee. March 19 (no. 111).
b. ♀. Kokai. July 11 (no. 1364).
c. ♂. Kokai. July 12 (no. 1450).
d. ♂. Bejook. July 18 (no. 1471).
e. Waliko. July 23.
f. ♀. Rairo. August 15 (no. 1394).

[Iris brown; beak dirty red, dark at the tip; legs and feet stone-grey.
Rather plentiful. Localities: Koomaylee, March; Kokai, Bejook, Waliko, Rairo, in July and August.—*W. J.*]

156. Pogonorynchus abyssinicus (Lath.).

Bucco saltii, Stanl.
Pogonias brucei, Rüpp. Neue Wirbelth. t. 20. 1.
Laimodon brucei, Rüpp. Syst. Uebers. p. 95. no. 338; Heugl. Syst. Uebers. no. 476.
Pogonias saltii, Brehm, Habesch, p. 220. no. 111.

a. ♀. Waliko. July 23 (no. 792).
b. ♀. Gabena Weldt Gonfallon. August 4.
c. ♂. Gabena Weldt Gonfallon. August 8.
d. ♂. Gabena Weldt Gonfallon. August 7 (no. 578).
e. ♂. Gabena Weldt Gonfallon. August 7 (no. 1875).
f. ♂. Bejook. July 17 (no. 702).

[Iris brown; beak black; legs and feet black.
Common on the river Anseba.—*W. J.*]

157. Pogonorhynchus undatus (Rüpp.).

Laimodon undatus, Rüpp. Neue Wirbelth. t. 20. 2; *id.* Syst. Uebers. p. 95. no. 339; Heugl. Syst. Uebers. no. 477.

a. ♂. Rayrayguddy. May 17 (no. 675).
b. ♂. Senafé. April 4 (no. 119).
c. ♂. Kokai. August 9 (no. 1578).

Long. al.	Caud.	Culm.	Tars.
2″ 11‴	1″ 7‴	7½‴	8‴.

Not observed in the Bogos country by Dr. von Heuglin.

[Iris white.

Not plentiful. Localities: Senafé, April, early; Rayrayguddy, May; Kokai (Anseba), August. Seen hawking insects like a Flycatcher, returning to its perch on a dead bough.—*W. J.*]

158. Pogonorynchus melanocephalus (Rüpp.).

Pogonias melanocephalus, Rüpp. Atlas, t. 28; *id.* Syst. Uebers. p. 95. no. 336.
—— *bifrenatus*, Hempr. & Ehrb. Symb. Phys. t. 8. f. 1.
Laimodon melanocephalus, Heugl. Syst. Uebers. no. 474.
Pogonias bifrenatus, Heugl. Fauna d. Roth. Meer. no. 196.

a. ♂. Rairo. August 13 (no. 973).

[The only specimen I procured or saw during my stay in the country.—*W. J.*]

159. Megalæma pusilla (Dumont).

Megalaima pusilla, Goffin, Mus. des Pays-Bas. (1863) p. 40.
Barbatula minuta, Hartl. W. Afr. p. 173.
—— *pusilla*, Heugl. Ibis, 1861, p. 124.

a. ♂. Kokai. July 13 (no. 576).
b. Kokai.
c. Waliko. July 21 (no. 1656).

Long. al.	Caud.	Culm.	Lat. rostr. ad basin.	Tars.		
2″ 1½‴	1″ 2‴	c. 5‴	3¼‴	6½‴	. . . .	Kokai.
2 0	1 1	4½	3	6	. . . . ♀.	Kokai.
2 1	1 2	c. 5	3¼	6½	. . . .	Waliko.
2 0	1 3	4⅔	—	6	. . . .	(Heuglin).
2 4	1 3	5¼	c. 4	7	. . . .	Natal.
2 4	1 2	5	—	—	. . . .	*M. pusilla* (Goffin).

Von Heuglin has already mentioned this species as obtained once in a collection of birds from the Blue Nile, and has remarked on its being smaller than the measurements given by Hartlaub. The specimens in Mr. Jesse's collection confirm this fact, inasmuch as they have the wings a little shorter, also the bill, but the latter only comparatively. In comparing Mr. Jesse's specimens with an old male in full dress from

Natal (the only southern specimen which I have) I find, although the distribution of colours is quite the same, some differences also in the coloration, the spots on the occiput and hind neck being not so decidedly sulphur-yellow as in the Natal bird, but nearly white, only washed very faintly with yellow. The chin is also of a much paler sulphur-yellow in the northern specimens, like the other under parts; the orange-yellow margins on the quills and tectrices are rather obsolete; and the yellow supercilium, so visible in the southern bird, is very slightly tinged with yellowish, and nearly white. Many persons would think these differences sufficient to constitute a new species; but I am not able to do so, having certain reasons to believe that they are only the effects of age or season. All the specimens in Mr. Jesse's collection killed in the month of July are partially moulting, getting here and there new feathers, which are as bright as the corresponding feathers in the Natal specimen: on the chin, for instance, in one specimen are some feathers not quite developed, which are of as bright a sulphur-yellow as in the one from Natal. All the old feathers are more or less rubbed; therefore the plumage is in general paler. Now every experienced ornithologist knows that similar differences in colouring according to the season occur in many of our European birds, and will not be surprised to find the same rule in African birds. The only important distinction would be the smaller size; but there must be large series to decide whether this character is permanent or not. I, at least for the present, do not venture to base a specific separation upon these characters.

M. J. Verreaux, in his Monograph of the African Barbets, is certainly wrong in giving "Nubie" as a locality for *M. pusilla*; and it may be remarked that in most cases his "Nubie" must be construed Sennahr or Abyssinia.

The Bogos country is a new locality.—*O. F.*

[Iris brown; legs and feet, toes two back and two forward.

Only observed during the Bogos journey. Localities: Kokai (Lebka), Waliko, Anseba.—*W. J.*]

Fam. PICIDÆ.

160. Picus nubicus, Gmel. (nec Licht.).

Picus æthiopicus, Hempr. & Ehrb. Symb. Phys.

Dendromus æthiopicus, Rüpp. Syst. Uebers. pp. 90 et 95. no. 346, t. 36; Heugl. Syst. Uebers. no. 487; *id.* Fauna des Roth. Meer. no. 198.

Picus nubicus, Finsch & Hartl. Vögel Ostafr. p. 509. no. 278.

a. ♂. Undel Wells. May 27 (no. 3001).
b. ♀. Undel Wells. May 27.
c. ♀. Undel Wells. May 27 (no. 3000).
d. ♀. Undel Wells.
e. ♂. Ain. July 6 (no. 1424).
f. ♂. Maragaz. July 29 (no. 1665).

g. ♂. Gabena Weldt Gonfallon. August 7 (no. 1794).
h. ♀. Bejook. July 16 (no. 1729).
i. ♂. Bejook. July 18 (no. 1751).

Long. al.	Caud.	Culm.
4″ 1‴–4″ 4‴	2″ 2‴–2″ 7‴	$8\frac{1}{2}$‴–10‴

The old males quite agree with the figure in Rüppell's 'Uebersicht.' Two other males, probably younger ones, have the whole upper surface of the head black, as in the female, but without white spots; the base of the feathers is of a conspicuous dark grey; in some specimens there are some red feathers on the vertex. The female has the head black, spotted with white; the nape is red; the mystacal stripe is also black. In other females the white spots on the head are much smaller.—*O. F.*

[Eye pearl-grey, in some specimens pearl-pink.

Common. Contents of stomach larvæ and eggs of insects.—*W. J.*]

161. Picus hemprichi, Ehrb.

Dendrobates hemprichii, Rüpp. Syst. Uebers. pp. 88 et 95. no. 345, t. 35 (♂); Heugl. Syst. Uebers. no. 486; *id.* Fauna d. Roth. Meer. no. 200; Brehm, Habesch, p. 221. no. 113.
Picus hemprichii, Finsch & Hartl. Vögel Ostafr. p. 514. no. 281.

a. ♀. Eylet. June 30 (no. 1968).
b. ♂. Rairo. August 13 (no. 1590).
c. ♀. Rairo. August 13 (no. 614).
d. ♀. Rairo. August 14.

Long. al.	Caud.	Culm.	Tars.
3″	1″ 7‴	$7\frac{1}{2}$‴	7‴ . . . . ♂.
3 –3″ 1‴	1 4 –1″ 6‴	$6\frac{1}{2}$ –7‴	7 . . . . ♀.

The females want the red on the occiput, having this part brownish black, and have the red on the upper tail-coverts paler.—*O. F.*

[Iris dark brick-red; beak horn-colour; legs and feet grey.

Rare. Localities: Eylet, June 30; Rairo, August 13.—*W. J.*]

Fam. CUCULIDÆ.

162. Centropus monachus, Rüpp.

Centropus monachus, Rüpp. Neue Wirbelth. t. 21. f. 2 (ad.).
—— *superciliosus*, Rüpp. Neue Wirbelth. t. 21. f. 1 (jun.).
—— *monachus* et *C. superciliosus*, Rüpp. Syst. Uebers. p. 96. nos. 352, 353; Heugl. Syst. Uebers. nos. 496, 497.
—— *superciliosus*, Heugl. Fauna des Roth. Meer. no. 203; Brehm, Habesch, p. 221. no. 115.
—— *monachus*, Finsch & Hartl. Vögel Ostafr. p. 528 (note).

a. ♂. Goon Goona. May 8 (no. 141).

b. ♀. Ain. July 7 (no. 1898).
c. ♀. Between Mahaber and Kokai. July 9 (no. 919).

Long. al.	Caud.	Culm.	Tars.
7″ 5‴	8″ 4‴	14‴	1″ 8‴ . . . . ♂.
6 0	7 6	12½	1 5 . . . . ♀.
5 9	7 4	12	1 6 . . . . ♀.

The old male agrees exactly with Rüppell's figure (t. 21. f. 2), the females with that on tab. 21. f. 1. The latter seem to be immature, for some of the quills and tail-feathers are just developing. There is much variation in size and coloration amongst specimens of this genus, and the different species are not at all settled.—*O. F.*

[Iris crimson; beak black; legs and feet black.

The only specimen I ever saw.

Centropus superciliosus is common from Ain (Lebka) to Bejook (Anseba), but difficult to shoot owing to its sneaking among dense bushes. Note singularly lugubrious. Occurs also at Eylet. Insectivorous.

All specimens procured were alike in plumage; those of Mr. Blanford as well. I think this *must* be distinct from *C. monachus*.—*W. J.*]

163. Oxylophus afer, Leach.

Oxylophus ater, Rüpp. Syst. Uebers. p. 96. no. 355.
—— *afer*, Heugl. Syst. Uebers. no. 499.
Coccystes hypopinarus, Cab. & Heine, Mus. Hein. iv. p. 47.

a. ♂. Maragaz. July 29 (no. 1977).
b. Waliko. August 2 (no. 535).
c. ♂. Gabena Weldt Gonfallon. August 7 (no. 958).
d. ♂. Gabena Weldt Gonfallon. August 7 (no. 1074).
e. ♀. Gabena Weldt Gonfallon. August 8 (no. 1550).

Long. al.	Caud.	Culm.	
6″ 4‴–6″ 9‴	7″ 9‴–8″ 5‴	9‴–10‴.	
6 9 –6 10	8 3 –8 4	10½–11	. . . . Damaraland.

The female is similar to the male. In some specimens the dark shaft-stripes on the throat are much narrower.

I cannot agree with Dr. Cabanis in separating the southern form as a distinct species, since I have compared specimens from Damaraland with Abyssinian ones. The measurements of Mr. Jesse's specimens will prove that they are as large as southern ones, and that there is a great variety in size.

Von Heuglin does not notice this species from the Bogos country.—*O. F.*

[Iris brown; legs and feet bluish grey.

This bird was procured by me in the Anseba valley, and by W. T. Blanford at Kokai. Mr. Blanford extracted the egg, which is of a greenish-blue colour. Contents of stomach apparently small coleoptera and vegetable matter.—*W. J.*]

164. Oxylophus jacobinus, Bodd.

Oxylophus serratus, Strickl. P. Z. S. 1850, p. 219; Heugl. Syst. Uebers. no. 500.
Coccystes jacobinus et *C. pica* (Hempr. & Ehrb.); Cab. & Hein. Mus. Hein. iv. pp. 45, 46.

a. ♀. Waliko. August 3 (no. 470).

Long. al.	Caud.	Culm.	Tars.		
4″ 9‴	6″ 5‴	8½‴	12‴	. . . . ♀.	
5 7	6 6	8	12½	. . . . ♂.	Keren.
5 5	5 11	8½	12	. . . .	Pegu.

The north-eastern specimens agree with those from the Cape and India (Pegu, Bremen Mus.).

The African one is not larger, as Dr. Cabanis suggests.—*O. F.*

[The only specimen I saw.—*W. J.*]

165. Cuculus canorus, Linn.

Cuculus canorus, Rüpp. Syst. Uebers. p. 96. no. 356; Heugl. Syst. Uebers. no. 502; *id.* Fauna des Roth. Meer. no. 205.

a. ♂. Between Massowah and Ain. August 22.

b. ♂. Between Massowah and Ain. August 22.

Both specimens, in full dress, are similar in every respect to European ones.

It may be remarked that *C. chalybœus*, Heugl. (Journ. f. Orn. 1862, p. 34), from the Abyssinian coast, is certainly the *C. clamosus*, Lath. (Levaill. t. 204). The Bremen Museum possesses one of Heuglin's typical specimens, which shows no difference from southern ones.—*O. F.*

[Mr. Blanford procured this species in Bogos in July or August. I never heard the cry of the Cuckoo.—*W. J.*]

166. Chrysococcyx cupreus (Bodd.).

Chrysococcyx auratus, Rüpp. Syst. Uebers. p. 96. no. 358; Heugl. Syst. Uebers. no. 504.
Lamprococcyx cupreus, L. chrysochlorus, et *L. chrysites*, Heine, jun., Journ. f. Orn. 1863, p. 350.

a. ♂. Bejook. July 14 (no. 565).

M. Heine, jun., is certainly mistaken in dividing this species into three geographical species. After having examined numerous specimens from the north-east, west, and south, I cannot see any reason for separating them.—*O. F.*

[Iris orange, eyelid also.

The only one I saw. Contents of stomach larvæ.—*W. J.*]

167. Indicator sparrmani, Steph.

Indicator albirostris, Temm. Pl. Col. 367 (♂).
—— *flaviscapulatus*, Rüpp. Neue Wirbelth. p. 60.
—— *archipelagicus* (Temm.!), Rüpp. Syst. Uebers. p. 96. no. 349.

Indicator archipelagicus et *I. albirostris*, Heugl. Syst. Uebers. nos. 491 et 492.
—— *pallidirostris*, Heugl. Journ. f. Orn. 1864, p. 265.

♀. Maragaz. July 27 (no. 1774).

The female differs from the old male in being above somewhat duller brown, and in wanting the black chin and throat as well as the white ear-spot; the whole under surface is dirty white, tinged faintly with pale brownish; the dark shaft-stripes on the sides are narrower than in the male; the white margins of the upper quill-coverts are wanting, the yellow on the humerus less developed; the bill brownish horn-colour, not yellowish white; otherwise the female is similar to the male.

Long. tota.	Al.	Caud.	Culm.	Tars.
c. 6″	4″ 2‴	2″ 5‴	5¼″	7

Indicator archipelagicus, Temm., from Borneo, to which Rüppell and Heuglin refer this bird, is a very different species. I have compared specimens of Heuglin's *I. archipelagicus*, from Galabat, in the Vienna Museum, with Cape specimens of *I. sparrmani*, and could not find any permanent difference. An old male from the Bariland, in the Vienna Museum, forwarded by a Catholic missionary, has the chin and throat black and a white ear-spot, like old birds from the Cape and Senegambia (Brem. Mus.). Heuglin's *I. pallidirostris*, of which I have compared the type specimens from Wau and Bongo, is this species in a younger stage, having the black on the chin not yet developed, the ears dirty white, and the jugulum and breast tinged with yellow. The six Indicators of North-east Africa, mentioned by von Heuglin (Journ. f. Orn. 1864, p. 265), must be reduced to four—namely, *I. major*, Steph. (=*I. barianus*, Heugl. Syst. Uebers, no. 493; I have compared the type specimen in the Vienna Museum), *I. sparrmani*, Steph., *I. minor*, Steph., and *I. conirostris*, Cass. (=*pachyrhynchus*, Heugl.), the last being very probably equal to *I. minor*.—*O. F.*

[Eye pale burnt-sienna; legs and feet dark grey.

Contents of stomach fragments of insects and wax. I shot another specimen, which had guided us by its cry to honey, and paid dearly for it, or rather my naked servants did; for on trying to take the honey after killing the bird, the bees turned out to be "stingers," and I had to run away, leaving my specimen behind. One of my men was so badly stung as to be obliged to ride home. I did not meet with this bird elsewhere.—*W. J.*]

168. Indicator minor, Steph.

Le petit Indicateur, Levaill. Ois. d'Afr. t. 242.
Indicator diadematus, Rüpp. Neue Wirbelth. p. 61.
—— *minor*, Rüpp. Syst. Uebers. p. 96. no. 350; Heugl. Syst. Uebers. no. 494; *id.* Fauna des Roth. Meer. no. 202; Brehm, Habesch, p. 221. no. 114; Finsch & Hartl. Vögel Ostafr. p. 515. no. 282.

♂. Waliko. July 30 (no. 533).

The specimen agrees very well with a South-African specimen in the Bremen Museum.

Long. tota.	Al.	Caud.	Culm.	Tars.
c. 5″	3″ 4‴	2″	4‴	6‴

A very nearly allied, probably not different, species is *I. conirostris*, Cass., of which *I. pachyrhynchus*, Heugl. (Journ. f. Orn. 1864, p. 266), is merely a synonym.—*O. F.*

[This specimen was given me by Mr. W. T. Blanford. I did not myself see one. —*W. J.*]

Fam. COLUMBÆ.

169. Treron waalia (Gm.).

Vinago abyssinica, Rüpp. Syst. Uebers. p. 100. no. 360.
Geopelia humeralis (Wagl.), Heugl. Syst. Uebers. no. 510.
Treron abyssinica, Brehm, Habesch, p. 221. no. 116.
—— *waalia*, Finsch & Hartl. Vögel Ostafr. p. 533. no. 288.

a. ♀. Rayrayguddy. May 16 (no. 2004).
b. ♂. Near Senafé. May 21 (no. 610).

Long. tota.	Al.	Caud.	Culm.	Tars.	Dig. med.
c. 11½″	6″ 8‴	3″ 7‴	7‴	11‴	12‴ . . . ♂
—	6 6	3 5	c. 7	c. 11	— . . . ♀

The female similar to the male, but the yellow on the belly lighter.—*O. F.*

[Iris blue, with an outer ring of salmon-pink; beak bluish grey, red at base; legs and feet pinkish yellow, toes blue.

Found up the pass from Undel Wells to Senafé.—*W. J.*]

170. Columba guineensis, Briss.

Columba guinea, Rüpp. Syst. Uebers. p. 100. no. 363.
Palumbus guineus, Heugl. Syst. Uebers. no. 508.
Stictœnas guinea, Brehm, Habesch, p. 222. no. 118.
Columba guineensis, Finsch & Hartl. Vögel Ostafr. p. 539. no. 291.

a. ♂. Senafé. April 15 (no. 107).
b. ♂. Kokai. July 12 (no. 1716).

[Iris white, with outer ring of light brown, fleshy skin round the eye dark crimson; legs and feet pink.

Common about Senafé in April, seen in large flocks on the cultivated lands; other localities, Gelamet and Kokai, July.—*W. J.*]

171. Columba albitorques, Rüpp.

Columba albitorques, Rüpp. Neue Wirbelth. t. 22. f. 1; *id.* Syst. Uebers. p. 100. no. 364.
Palumbus albitorques, Heugl. Syst. Uebers. no. 509.

a. ♀. Senafé. May 24 (no. 694).

[Iris brown; legs and feet red.

Plentiful down from Senafé to Rayrayguddy.—*W. J.*]

172. Columba lugens, Rüpp.

Columba lugens, Rüpp. Neue Wirbelth. t. 22. f. 2.
Turtur lugens, Rupp. Syst. Uebers. p. 100. no. 368; Heugl. Syst. Uebers. no. 516.

a. Taconda Pass. April 24 (no. 199).

[Iris salmon-pink, skin round eye crimson; legs and feet pink.
No further notes.—*W. J.*]

173. Turtur albiventris, Gray.

Turtur semitorquatus, Sws. (*nec* Rüpp.).
—— *risorius*, Rüpp. Syst. Uebers. p. 100. no. 366; Heugl. Syst. Uebers. no. 513; Brehm, Habesch, p. 222. no. 121; Finsch & Hartl. Vögel Ostafr. p. 546. no. 294.

a. ♂. Koomaylee. June 3.
b. ♀. Koomaylee. June 3.
c. ♀. Koomaylee. June 3.

Long. al.	Caud.	Culm.	Tars.
5″ 8‴	3″ 7‴	7‴	9‴ . . . ♂.
5 7	3 4	c. 7	9 . . . ♂.
5 5	3 2	6¼	9 . . . ♀.

I take the specimens in Mr. Jesse's collection for the above-named species, although they seem to differ a little from western specimens. *T. capicola*, Sund., from South Africa differs in being generally somewhat darker, especially on the under quill-coverts, which are more grey than greyish white. In *T. albiventris* the head also wants the ashy tint, and is of a delicate vinaceous like the breast. The north-eastern specimens resemble, therefore, in every respect Levaillant's "*Tourterelle blonde à collier*" (tab. 268), which Bonaparte refers to the Indian *T. risorius*—the latter species being, however, quite different in having the crissum and under tail-coverts ashy instead of white.

The African species of the genus *Turtur* are not at all well understood, and the distinction of them is difficult. They vary considerably in the intensity of the colouring in different localities; but without having large series one is unable to say whether these differences are specific or not. The slight differences of the North-eastern examples of this bird I have mentioned already. In specimens of it from Damaraland the vinaceous colour of the belly is washed with a delicate grey, the top of the head is pale ashy, like the under wing-coverts[1].

There is also an individual variation from age and season. The female has the rump almost brown like the back, the same as the upper quill-coverts, which show only a few greyish margins; whereas in the male the rump is ashy, mixed with brownish feathers, the same as the quill-coverts.—*O. F.*

Common in the plains, and up the pass as far as Sooroon. In June seen in large flocks.—*W. J.*]

[1] This is our *T. damarensis*, Finsch & Hartl. Vögel Ostafr. p. 550.

174. Turtur senegalensis (Linn.).

Turtur senegalensis, Rüpp. Syst. Uebers. p. 100. no. 367; Heugl. Syst. Uebers. no. 515; *id.* Fauna d. Rothen Meer. no. 209; Brehm, Habesch, p. 222. no. 119; Finsch & Hartl. Vögel Ostafr. p. 551. no. 296.

a. ♂. Koomaylee. June 6.

Domesticated along the shores of the Red Sea (Heuglin) (W., E., S.).—*O. F.*

[Common in March and April at Koomaylee; in June, July, and August they had moved further up the hills.—*W. J.*]

175. Chalcopelia afra (L.)

Peristera chalcospilos, Wagl.; Rüpp. Syst. Uebers. pp. 98 et 100. no. 372, t. 38; Heugl. Syst. Uebers. no. 511.

Chalcopelia afra, Heugl. Fauna des Rothen Meer. no. 211; Brehm, Habesch, p. 222. no. 122; Finsch & Hartl. Vögel Ostafr. p. 254. no. 297.

a. ♂. Ain. August 16 (no. 74).
b. ♂. Mohaber. July 8 (no. 812).
c. ♀. Between Gelamet and Kokai. August 10 (no. 32).
d. ♂. Kokai. August 10 (no. 34).
e. ♀. Maragaz. July 28 (no. 817).
f. ♀. Waliko. August 2 (no. 1798).

Long. al.	Caud.
3″ 11‴–4″ 4‴	3″ 7‴–3″ 11‴

The females have the spots on the tertiaries of a brilliant amethyst-blue; in the males they are of the same colour, but change on the outer margins into metallic green.

The specific distinctness of this bird from the South-African *Ch. chalcospilos*, which differs only in having metallic-green wing-spots, is not at all certain.—*O. F.*

[Iris brown; legs and feet pink.

Localities: Anseba Valley to Ain and Eylet; at this latter place they were plentiful. —*W. J.*]

176. Œna capensis (Linn.).

Œna capensis, Rüpp. Syst. Uebers. p. 100. no. 371.

Ectopistes capensis, Heugl. Syst. Uebers. no. 519.

Œna capensis, Heugl. Fauna d. Roth. Meer. no. 212; Brehm, Habesch, p. 222. no. 123; Finsch & Hartl. Vögel Ostafr. p. 257. no. 298.

a. ♂. Koomaylee. June 3.
b. ♂. Koomaylee. June 4.
c. ♂. Koomaylee. June 4.
d. ♀. Koomaylee. June 4.
e. ♀. Ain. August 16 (no. 2).

[Legs and feet dark purple.

At Koomaylee, on the plains, I saw very few in March and April; by the end of June they were to be found in great numbers.—*W. J.*]

GALLINÆ.

Fam. PTEROCLIDÆ.

177. Pterocles exustus, Temm.

Pterocles exustus, Rüpp. Syst. Uebers. p. 106. no. 384; Heugl. Syst. Uebers. no. 537; *id.* Fauna d. Rothen Meer. no. 222.

—— *senegalensis,* Licht. (*nec* Sws.).

a. ♀. Mai Wallet. August 18.

The specimen agrees very well with the figure in the Pl. Col. 360.—*O. F.*

[The only specimen procured by me.—*W. J.*]

178. Pterocles lichtensteini, Temm.

Pterocles lichtensteini, Finsch & Hartl. Vögel Ostafr. p. 563; Rüpp. Syst. Uebers. p. 106. no. 387; Heugl. Syst. Uebers. no. 539; *id.* Fauna d. Roth. Meer. no. 224.

—— *quadricinctus,* Brehm, Habesch, p. 223. no. 130.

a. ♀. Koomaylee. June 3.
b. ♂. Sahati. June 23 (no. 139).
c. ♂. River Amba. August 19.
d. ♀. River Amba. August 19.
e. River Amba. August 19.
f. ♂. River Amba. August 19.

[Skin round the eye chrome-yellow; legs and feet chrome-yellow.

Very plentiful from the shore to the lower range of hills at Koomaylee, also Sahati, Eylet, and Amba.—*W. J.*]

Fam. MELEAGRIDÆ.

179. Numida ptiloryncha, Licht.

Numida ptilorynchа, Rüpp. Syst. Uebers. pp. 102 et 105. no. 373, t. 39; Heugl. Syst. Uebers. no. 520; *id.* Fauna d. Rothen Meer. no. 213; Brehm, Habesch, p. 222. no. 124; Finsch & Hartl. Vögel Ostafr. p. 570. no. 304.

a. ♀. Koomaylee. April 22 (no. 115).
b. Senafé. May.
c. Senafé. May.
d. ♂. Araflé. June 6.

The female is similar to the male; it has also the horny appendices on the base of the bill. Dr. Brehm affirms that they are wanting in the female.—*O. F.*

[Alluding to Dr. Brehm's assertion that the female does not possess the horny

excrescences, I can state that on several occasions I opened birds havings eggs so far advanced that I had them beaten up and fried; these birds all had the excrescences, but in some cases smaller than in others. I shot this bird on the plains and among the rocks of Senafé, and also literally on the sands of the bay at ebb tide. I am sorry now that I did not examine the stomachs of those shot on the shore.—*W. J.*]

Fam. TETRAONIDÆ.

180. Francolinus rubricollis, Rüpp. (*nec* Lath.).

Francolinus rubricollis, Rüpp. Atlas, t. 30.

Pternistes rubricollis, Rüpp. p. 106. no. 382; Heugl. Syst. Uebers. no. 531; *id.* Fauna d. Roth. Meer. no. 216; Brehm, Habesch, p. 223. no. 128.

Francolinus rubricollis, Finsch & Hartl. Vögel Ostafr. p. 576. no. 308.

—— *leucoscepus,* G. R. Gray.

a. ♂. Koomaylee. June 4.
b. ♀. Koomaylee. June 4.
c. ♂. Sahati. June 23 (no. 458).
d. ♀. Sahati. June 23 (no. 1231).
e. ♂. Between Rairo and Monbar Harratt-b'. August 14.
f. ♂. Rairo. August 14 (no. 904).

[Iris brown; skin under throat orange-red; throat chrome-yellow; legs and feet brown.

This species does not go far into the hills.—*W. J.*]

181. Francolinus rueppelli, Gray.

Perdix clappertoni, Rüpp. Atlas, t. 9.

Francolinus rüppelli, G. R. Gray; Rüpp. Syst. Uebers. p. 106. no. 379; Heugl. Syst. Uebers. no. 527; Brehm, Habesch, p. 223. no. 126.

a. ♂. Senafé. May 15 (no. 1168).
b. ♀. Senafé. May 15 (no. 1168).
c. ♀. Kokai. July 11 (no. 1292).
d. ♀. Bejook. July 16 (no. 1697).
e. ♀. Maragaz. July 30 (no. 1654).
f. ♂. Waliko. July 23 (no. 1810).
g. ♂. Waliko. July 24 (no. 1220).
h. ♀. Waliko. July 24 (no. 1834).
i. ♂. Waliko. July 24 (no. 1891).
k. ♂. Waliko. August 3 (no. 1121).
l. ♀. Waliko. August 4 (no. 1240).
m. ♂. Waliko. August 4 (no. 1201).

Differs from the nearly allied *Fr. clappertoni*, Gray, in the markings of the feathers on the jugulum and breast. These are in this species brown, paler on the centre, with

a narrow whitish margin, which is separated internally by a blackish arrow-shaped line running parallel with the exterior margin; whereas in *Fr. clappertoni* the whitish outer margin is much broader, leaving a much narrower dark brown centre. All the specimens in Mr. Jesse's collection show these peculiarities.—*O. F.*

[Iris brown; skin round eye bright scarlet; legs and feet black in front and scarlet behind, soles of feet scarlet.

Localities: Senafé, Kokai, and the Anseba valley, nowhere else; its cry is a screech like that of the Barn-Owl at times. Obtained from May to August.—*W. J.*]

182. Francolinus erkelii, Rüpp.

Francolinus erkelii, Rüpp. Neue Wirbelth. t. 6; *id.* Syst. Uebers. p. 106. no. 378; Heugl. Syst. Uebers. no. 526; *id.* Fauna des Roth. Meer. no. 215; Brehm, Habesch, p. 223. no. 125.

a. ♀. Senafé. April 15 (no. 150).
b. ♀. Senafé. May (no. 116).
c. ♂. Maragaz. July 30 (no. 1814).

[Iris brown; beak black with white tip; legs and feet stone-grey.

A strictly highland species. Localities: Undel Wells, Senafé, and Anseba valley. Cry of the male very like that of the Common Pheasant.—*W. J.*]

183. Francolinus gutturalis, Rüpp.

Francolinus gutturalis, Rüpp. Syst. Uebers. pp. 103 et 106. no. 380, t. 40; Heugl. Syst. Uebers. no. 529; *id.* Fauna d. Rothen Meer. no. 214; Brehm, Habesch, p. 223. no. 127; Finsch & Hartl. Vögel Ostafr. p. 584. no. 313.

a. ♀. Senafé. April 27 (no. 404).
b. ♂. Senafé.
c. ♂. Senafé. May (no. 130).
d. ♀. Senafé. May.
e. Senafé. May (no. 432).
f. ♂. Bejook. July 13 (no. 1159).
g. ♂. Bejook. July 13 (no. 1717).

[Iris brown; legs and feet yellowish-grey.

A highland form. Localities: Senafé and Anseba valley. Cry resembling that of the Grey Partridge (*Perdix cinerea*) of England.

All the Francolins vary much in quality for the table, sometimes being too nauseous to be eaten: when this is the case I have found that they have been feeding on insects.

Among the Francolins the male is heavier than the female.—*W. J.*]

GRALLATORES.

Fam. OTIDÆ.

184. Otis arabs, Linn.

Otis arabs, Rüpp. Atlas, tab. 16, *id.* Syst. Uebers. p. 110. t. 391.

Eupodotis arabs, Heugl. Syst. Uebers. no. 551; *id.* Fauna des Roth. Meer. no. 226; Brehm, Habesch, p. 224. no. 132.

a. ♀. Azoos. July 2 (no. 664).

b. ♂. Ain. July 5 (no. 1053).

Long. al.	Caud.	Culm.	Rostr. a rict.	Tars.	Dig. med.
$22\frac{1}{2}''$	$12''$	$3''\ 0'''$	$4''\ 1'''$	$6''\ 4'''$	$2''\ 2'''$ . . . ♂.
$18\frac{1}{2}$	$8\frac{1}{2}$	2 9	3 7	6 2	2 1 . . . ♂.

The female is smaller in size, but in colour similar, except as regards the dark markings on the tail-feathers, which are less decided, and on some feathers restricted to the outer web.—*O. F.*

[Iris yellowish stone-colour; beak pale horn-colour; legs and feet whitish yellow.

Localities: Ain, Azoos, Koomaylee, and Zoulla. I also saw its tracks between Gelamet and Rairo. The male is much larger than the female. I found them either in pairs or solitary.—*W. J.*]

Fam. CHARADRIIDÆ.

185. Œdicnemus crepitans, L.

Œdicnemus crepitans, Rüpp. Syst. Uebers. p. 116. no. 395; Heugl. Syst. Uebers. no. 553; *id.* Fauna des Rothen Meer. no. 229; Finsch & Hartl. Vögel Ostafr. p. 619. no. 325.

a. ♀. Zoulla. March 11 (no. 171).

b. ♂. River Amba. August 21.

c. River Amba. August 21.

[Iris bright lemon-colour; beak yellow at base, tipped with black; legs and feet greenish yellow.

Localities: Zoulla and Amba.—*W. J.*]

186. Œdicnemus affinis, Rüpp.

Œdicnemus affinis, Rüpp. Syst. Uebers. pp. 111 et 117. no. 396, t. 42; Heugl. Syst. Uebers. no. 554; *id.* Fauna des Rothen Meer. no. 230; Brehm, Habesch, p. 224. no. 133; Finsch & Hartl. Vögel Ostafr. p. 626. no. 328.

a. ♂. Gabena Weldt Gonfallon. August 6 (no. 667).

[Iris brown; beak halfway from base chrome-yellow, rest black; legs and feet chrome-yellow.

These notes of iris and legs will be found to disagree with Rüppell's description; so I can only suppose mine to have been taken from a young bird. I only saw this one specimen.—*W. J.*]

187. Dromas ardeola, Paykull.

Dromas ardeola, Rüpp. Syst. Uebers. p. 121. no. 439; Heugl. Syst. Uebers. no. 624; *id.* Fauna d. Roth. Meer. no. 261; Finsch & Hartl. Vögel Ostafr. p. 627. no. 329.

a. ♀. Suakin. September 1.

b. ♂. juv. Suakin. September 1.

[Iris nearly black.

I procured three specimens at Suakin, one a young bird: of one of these I made a skeleton. At Zoulla, in March, I shot eight; but they were, unfortunately, all spoiled. I observed this bird at Zoulla in June, but not so numerous, also at Massowah.—*W. J.*]

188. Cursorius chalcopterus, Temm.

Cursorius chalcopterus, Heugl. Syst. Uebers. no. 557.

—— *superciliosus,* Heugl. Journ. f. Orn. 1865, p. 98; Finsch & Hartl. Vögel Ostafr. p. 629. no. 330.

a. ♂. Waliko. August 2 (no. 1090).

Von Heuglin's *C. superciliosus*, of which I have examined the type specimen, is this species in immature plumage. Similar specimens from Damaraland I have seen in the collection of the late Mr. Andersson.—*O. F.*

[Iris brown; beak black, gape and base of lower mandible coral-colour; legs and feet pink.

The only specimen I ever saw.—*W. J.*]

189. Glareola pratincola, L.

Glareola pratincola et *G. limbata,* Rüpp. Syst. Uebers. p. 113 et 117. no. 400 et 401, t. 43; Heugl. Syst. Uebers. no. 560 et 561; *id.* Fauna d. Roth. Meer. no. 233 et 233; Finsch & Hartl. Vögel Ostafr. p. 630. no. 331.

a. ♀. Gabena Weldt Gonfallon. August 7 (no. 1585).

Distributed over the whole of Africa. *Gl. limbata*, Rüpp., is not separable from the European bird.—*O. F.*

[Iris brown; beak black; legs and feet pinkish-brown.

The only specimen I procured; Mr. Blanford procured two at Rairo. I never saw this species on the plains or along the shore.—*W. J.*]

190. Hoplopterus spinosus, Linn.

Hoplopterus spinosus, Rüpp. Syst. Uebers. p. 117. no. 407; Heugl. Syst. Uebers. no. 572; Brehm, Habesch, p. 224. no. 134.

a. ♀. River Amba. August 21.

[Beak black; legs and feet black.

The only specimen I saw.—*W. J.*]

191. Sarciophorus pileatus (L.).

Sarciophorus pileatus, Rüpp. Syst. Uebers. p. 118. no. 408; Heugl. Syst. Uebers. no. 572; *id.* Fauna des Roth. Meer. no. 235; Brehm, Habesch, p. 224. no. 135.

a. ♂. Koomaylee Plain. June 4.
b. ♀. Eylet. June 25 (no. 493).
c. ♀. Eylet. June 25 (no. 1224).

[Iris yellow; beak, base rose-colour, tip black, two red wattles at base of upper mandible; legs and feet purple-pink.

Localities: Eylet and Koomaylee.—*W. J.*]

192. Lobivanellus albicapillus, Vieill.

Lobivanellas senegalensis, Rüpp. Syst. Uebers. p. 117. no. 406; Heugl. Syst. Uebers. no. 569.
Lobivanellus albicapillus, Finsch & Hartl. Vögel Ostafr. p. 642. no. 338.

a. ♀. Kokai. August 10 (no. 67).
b. ♂. Gabena Weldt Gonfallon. August 6 (no. 471).
c. ♀. Gabena Weldt Gonfallon. August 6 (no. 1616).

[Iris pale grey, verging on white on the outer edge; beak yellow at the tip, upper mandible black, top lobe of wattle dirty crimson, lower lobe chrome-yellow; legs and feet chrome-yellow.

I only observed this species on the Anseba and at Kokai.—*W. J.*]

193. Charadrius fluviatilis, Bechst.

Hiaticula minor, Rüpp. Syst. Uebers. p. 118. no. 413.
Ægialites minor et *Æ. auritus,* Heugl. Syst. Uebers. nos. 578 et 579.
—— *minor,* Heugl. Fauna d. Roth. Meer. no. 238.
Charadrius fluviatilis, Finsch & Hartl. Vögel Ostafr. p. 659. no. 347.

a. ♂. River Amba. August 21.

[Not obtained elsewhere.—*W. J.*]

194. Charadrius tricollaris, Vieill.

Charadrius bitorquatus, Licht.
Hiaticula indica, Rüpp. Syst. Uebers. p. 118. no. 412.
Ægialites indicus et *Æ. cinereicollis,* Heugl. Syst. Uebers. nos. 581 et 582.
—— *cinereicollis,* Heugl. Fauna des Roth. Meer. no. 242.
Charadrius tricollaris, Finsch & Hartl. Vögel Ostafr. p. 655. no. 345.

a. ♂. Eylet. June 26 (no. 1827).
b. ♀. Eylet. June 26 (no. 1853).
c. ♂. Eylet. June 29 (no. 1854).

The specimens agree with South-African specimens from the Cape and Damaraland. Heuglin's *Æ. cinereicollis*, of which I have compared the typical specimen, is not different.—*O. F.*

[Iris stone-grey, eyelid orange; beak orange at base, black at tip; legs and feet pale pink.

Not observed elsewhere.—*W. J.*]

195. Charadrius geoffroyi, Wagl.

Charadrius geoffroyi, Wagl. Syst. Av.; Finsch & Hartl. Vögel Ostafr. p. 648. no. 341.
Hiaticula geoffroyi, Rüpp. Syst. Uebers. p. 118. no. 415.
Ægialites geoffroyi, Heugl. Syst. Uebers. no. 583; *id.* Fauna des Roth. Meer. no. 243.
—— *columbinus,* Hempr. & Ehrb. no. 241.

a. ♂. Zoulla. March 12 (no. 138).
b. ♂. Massuah. June 24.
c. ♂. Massuah. August 24.
d. Massuah. August 24.

[Iris brown, nearly black; beak black; legs and feet black.

Localities: Zoulla, March; Massuah, June and August.—*W. J.*]

196. Charadrius pecuarius, Temm.

Hiaticula pecuaria, Rüpp. Syst. Uebers. p. 118. no. 414.
Ægialites longipes et *pecuarius,* Heugl. Syst. Uebers. nos. 584, 585.

♂. Zoulla. June 3.

Long. al.	Caud.	Culm.	Tars.
3″ 11‴	1″ 7‴	6½‴	12½‴

Agrees very well with specimens from Damaraland.

Dr. Rüppell notices this species only from Egypt; it seems not to have been observed on the Red Sea—*O. F.*

[The only specimen procured; seen in small flocks of four or five.—*W. J.*]

Fam. ARDEIDÆ.

197. Ardea gularis, Bosc.

Ardea schistacea, Hempr. & Ehrb. Symb. Phys. t. vi.
Egretta gularis, Rüpp. Syst. Uebers. p. 121. no. 428 *a.*
—— *schistacea* et *A. ardesiaca,* Heugl. Syst. Uebers. nos. 603 et 606.
Herodias schistacea, Brehm, Habesch, p. 225. no. 142; Finsch & Hartl. Vögel Ostafr. p. 691. no. 364.

a. ♀. Massuah. August 24.

[Not uncommon about the coast.—*W. J.*]

198. Ardea atricapilla, Afz.

Buphus griseus, Heugl. Syst. Uebers. no. 611.
Butorides atricapillus, Heugl. Fauna des Roth. Meer. no. 254.
Ardea atricapilla, Finsch & Hartl. Vögel Ostafr. p. 701. no. 368.

a. ♀. Massuah. August 24.

b. Massuah. August 24.
c. ♀. Ain. August 16 (no. 83).

[Iris lemon-yellow; legs and feet greenish yellow.
I procured two immature birds at Massuah.—*W. J.*]

Fam. CICONIIDÆ.

199. Ciconia abdimii, Licht.

Sphenorhynchus abdimii, Hempr. & Ehrb. Symb. Phys. t. v; Rüpp. Atlas. t. 8; *id.* Syst. Uebers. p. 122. no. 443; Heugl. Syst. Uebers. no. 628; Brehm, Habesch, p. 226. no. 145; Finsch & Hartl. Vögel Ostafr. p. 721. no. 377.

a. ♀. Undel Wells. April 7 (no. 418).
b. ♂. Senafé. May 8 (no. 1933).
c. Bejook. July 29.

[Iris brown; beak dirty green, tip red; a fleshy skin round base of beak, eye, cheek, ear, and chin flesh-colour, on the forehead and round the eye in front crimson; rest of the skin blue, except the chin, which is crimson: skin of the neck red; legs dirty white, knees and feet dirty red, skin under the wing-bone pink; tongue very short.

Contents of stomach beetles. At Koomaylee these birds (a small flock of five or six) frequented the carrion carcasses, possibly with a view to feed on the maggots, with which the road even was *alive.*—*W. J.*]

Fam. TANTALIDÆ.

200. Scopus umbretta, L.

Scopus umbretta, Rüpp. Syst. Uebers. p. 121. no. 435; Heugl. Syst. Uebers. no. 618; *id.* Fauna des Roth. Meer. no. 262; Brehm, Habesch, p. 226. no. 146; Finsch & Hartl. Vögel Ostafr. p. 727. no. 328.

a. ♂. Senafé. April 17 (no. 852).
b. ♂. Taconda. April 21 (no. 430).
c. ♀. Kooseret. July 2 (no. 767).
d. ♂. Ain. July 6 (no. 1698).

[Iris brown; beak black; legs and feet black.
Localities: Senafé, April; Taconda, April; Ain and Kooseret, July. Contents of stomach larvæ of water-insects.—*W. J.*]

201. Ibis carunculata, Rüpp.

Ibis carunculata, Rüpp. Neue Wirbelth. t. 19. f. 1; *id.* Syst. Uebers. p. 122. no. 448; Heugl. Syst. Uebers. no. 634; *id.* Fauna des Roth. Meer. no. 265.

a. ♂. Senafé. April 23 (no. 453).

b. Facado. May 2.
c. Facado. May 2.

Localities: Senafé, Goongoona, and Facado. Feeds on the insects found in cow-dung.—*W. J.*]

Fam. SCOLOPACIDÆ.

202. Numenius phæopus (Lath.).

Numenius phæopus, Rüpp. Syst. Uebers. p. 125. no. 453; Heugl. Syst. Uebers. no. 640; Finsch & Hartl. Vögel Ostafr. p. 739. no. 388.

a. ♀. Massuah. August 24.

[Not uncommon on the coast.—*W. J.*]

203. Totanus calidris, Bechst.

Totanus calidris, Rüpp. Syst. Uebers. p. 126. no. 459; Heugl. Syst. Uebers. no. 644; *id.* Fauna des Roth. Meer. no. 270; Brehm, Habesch, p. 227. no. 151.

a. ♂. Zoulla. March 12 (no. 126).
b. ♂. Zoulla. March 12 (no. 112).
c. ♀. Massuah. August 24.

[Common, in pairs generally. Note the same as in England.—*W. J.*]

204. Totanus ochropus (Linn.).

Totanus ochropus, Rüpp. Syst. Uebers. no. 126. no. 460; Heugl. Syst. Uebers. no. 646; *id.* Fauna des Roth. Meer. no. 271; Brehm, Habesch, p. 227. no. 152.

a. Zoulla. June 6 (no. 173).
b. ♂. Senafé. April 15 (no. 1817).

[Distributed from the plains to the highlands of Tigré and Bogos.—*W. J.*]

205. Totanus stagnatilis, Bechst.

Totanus stagnatilis, Rüpp. Syst. Uebers. p. 126. no. 456; Heugl. Syst. Uebers. no. 643.

a. ♀. Zoulla. March 13 (no. 113).

[Eye black; beak black; legs and feet pale greenish stone-colour.
The only specimen procured.—*W. J.*]

206. Actitis hypoleucos (Linn.).

Actitis hypoleucos, Rüpp. Syst. Uebers. p. 126. no. 458; Heugl. Syst. Uebers. no. 647; *id.* Fauna des Roth. Meer. no. 272; Brehm, Habesch, p. 227. no. 153; Finsch & Hartl. Vögel Ostafr. p. 752. no. 393.

a. ♂. Senafé. April 15 (no. 419).
b. ♀. Ain. August 17.

c. ♀. Ain. August 17 (no. 88).
d. Ain. August 17 (no. 39).
e. ♂. Maragaz. July 27 (no. 496).
f. ♀. Waliko. July 23 (no. 637).

[Well distributed from the plains to the highlands of Tigré and Bogos.—*W. J.*]

207. Himantopus autumnalis (Hasselqu.).

Himantopus vulgaris, Rüpp. Syst. Uebers. p. 126, no. 462; Heugl. Syst. Uebers. no. 656.
Himantopus autumnalis, Finsch & Hartl. Vögel Ostafr. p. 758.

a. ♀. Senafé. April 27 (no. 433).

Not noticed from Abyssinia by Dr. Rüppell and von Heuglin; the latter says, goes as far to the south as Cordofahn.—*O. F.*

[Iris dark brown; beak black; legs and feet red.

The only specimen which came under my notice.—*W. J.*]

Fam. RALLIDÆ.

208. Rallus rougeti, Guér.

Rallus rougeti, Guérin, Rev. Zool. 1844, p. 322.
—— *abyssinicus*, Rüpp. Syst. Uebers. p. 127. no. 478, t. 46; Heugl. Syst. Uebers. no. 670.

a. ♀. Lake Ashangi. May.

[Given me by Mr. W. T. Blanford; killed by him at Lake Ashangi.—*W. J.*]

209. Gallinula chloropus (Linn.).

Gallinula chloropus, Rüpp. Syst. Uebers. p. 128. no. 479; Heugl. Syst. Uebers. no. 671; *id.* Fauna des Roth. Meer. no. 281; Finsch & Hartl. Vögel Ostafr. p. 787. no. 408.

a. ♂. Senafé. May (no. 1556).

Von Heuglin had already noticed this species from Abyssinia.—*O. F.*

[Iris brown.

I shot one other specimen at Goongoona: in no. 1556 the wing had a *very* small spur. Did not see this bird elsewhere.—*W. J.*]

NATATORES.

Fam. ANATIDÆ.

210. Chenalopex ægyptiaca (Linn.).

Chenalopex ægyptiaca, Rüpp. Syst. Uebers. p. 137. no. 487; Heugl. Syst. Uebers. no. 682; *id.* Fauna des Roth. Meer. no. 285; Brehm, Habesch, p. 228. no. 159; Finsch & Hartl. Vögel Ostafr. p. 803. no. 415.

a. ♂. Maragaz. July 28 (no. 705).
b. ♀. Maragaz. July 28.
c. ♂. Waliko. July 25 (no. 699).
d. Waliko. July 25.

Long. al.	Caud.	Culm.	Tars.	Dig. med.	
15″–15½″	4½″ 5‴	22‴–23‴	3″ 4‴	2″ 6‴–2″ 9‴	. . . . ♂.
14	4 4	—	3 0	2 6	. . . . ♀.

The female is similar to the males, but has the chestnut patch of feathers on the breast less developed.—*O. F.*

[Iris reddish yellow; legs pink, toes black.

Common in flocks on Goore plain, near Senafé. One female shot on the Anseba, 28th July, had a completely formed egg inside, which I unfortunately broke. These birds were then in pairs along the river-side.—*W. J.*]

211. Rhynchaspis clypeata (Linn.).

Spatula clypeata, Rüpp. Syst. Uebers. p. 138. no. 496.
Rhynchaspis clypeata, Heugl. Syst. Uebers. no. 699.
Spatula clypeata, Heugl. Fauna d. Roth. Meer. no. 289.

a. ♂. Senafé. April 12 (no. 462).
b. ♀. Senafé. April 12 (no. 500).

Von Heuglin notices this Duck as a permanent inhabitant of Abyssinia.—*O. F.*

[Iris yellow; beak dirty green; female, beak lighter, under mandible red; legs and feet orange.

I only saw one small flock at Senafé, none elsewhere.—*W. J.*]

Fam. COLYMBIDÆ.

212. Podiceps minor, Lath.

Podiceps minor, Rüpp. Syst. Uebers. p. 138. no. 502; Heugl. Syst. Uebers. no. 709; *id.* Fauna d. Roth. Meer. no. 292; Finsch & Hartl. Vögel Ostafr. p. 811. no. 421.

a. ♂. Senafé. April 13 (no. 415).

Long. al.	Caud.	Tars.	Dig. ext.
3″ 10‴	9‴	15‴	18‴.

A full-dressed female, with the sides of the head and the neck chestnut, the same as in European specimens. Drs. Hemprich & Ehrenberg collected this very widely distributed species in Arabia..—*O. F.*

[The only specimen I saw.—*W. J.*]

Fam. LARIDÆ.

213. Larus leucophæus, Licht.

Larus leucophæus, Heugl. Fauna des Roth. Meer. no. 298; Finsch & Hartl. Vögel Ostafr. p. 818. no. 426.

a. Zoulla. June 8.

Long. al.	Caud.	Culm.	Rost. a rict.	Tars.	Tib.	Dig. med.
16″ 8‴	6″ 4‴	2″ 3‴	3″ 3‴	2″ 7‴	1″ 5‴	2″ 1″.

The whole plumage rubbed and faded, therefore the colours ill defined; the white apical spot on the primaries worn off; tail-feathers white, on the apical half blackish brown. Whether this species is really specifically different from *L. argentatus* I am not able to say.—*O. F.*

[The only specimen procured.—*W. J.*]

214. Larus leucophthalmus, Licht.

Larus leucophthalmus, Rüpp. Syst. Uebers. p. 139. no. 507; Heugl. Syst. Uebers. no. 720; *id.* Fauna des Rothen Meer. no. 300; Brehm, Habesch, p. 228. no. 161; Finsch & Hartl. Vögel Ostafr. p. 821. no. 428.

a. Zoulla. June 7.
b. ♀. Zoulla. June 8.
c. ♀. Zoulla. June 8.
d. ♀. Zoulla. June 8.
e. ♀. Zoulla. June 8.
f. ♀. Zoulla. June 8.
g. Zoulla. June 8.
h. Zoulla. June 13.
i. Zoulla. June 13.

Long. al.	Caud.	Culm.	Tars.	Tib.	Dig. med.
11″–12″	4″–4″ 6‴	20‴–22‴	19‴–23‴	10‴–11‴	16‴–18‴.

The coloration of the tail varies from black to white; the bill from dark red to black; the extension of the black on the head and throat varies also very much.—*O. F.*

[Iris brown; beak dark crimson, tip black, extreme point white; legs and feet chrome-yellow.

Out of nine specimens I have five females noted; the sex of the remainder is not noted.—*W. J.*]

215. Larus hemprichii, Bp. (Plate XXVII.)

Larus hemprichii, Heugl. Fauna des Roth. Meer. no. 299; Brehm, Habesch, p. 228. no. 160; Finsch & Hartl. Vögel Ostafr. p. 823. no. 429.

a. ♀. Zoulla. March 18 (no. 132).
b. Zoulla. June 8.
c. Zoulla. June 8.

Long. al.	Caud.	Culm.	Rostr. a rict.	Tars.	Tib.	Dig. med.
11″ 10‴–13″	4″ 4‴–4″ 10‴	20‴–23‴	25‴–30‴	24‴–25‴	10‴–15‴	17‴–19‴.—*O. F.*

[Iris dark brown; beak greenish-yellow at base, including the nostril, to within a quarter of an inch of the end black, tip orange, dying away to greenish-yellow at the extreme point; legs and feet dirty greenish-yellow.

Obtained in March and June.—*W. J.*]

216. Sterna media, Horsf.

Sterna affinis, Rüpp. (*nec* Horsf.) Atlas, t. 14; *id.* Syst. Uebers. p. 139. no. 518; Heugl. Syst. Uebers. no. 740; *id.* Fauna des Rothen Meer. no. 309; Brehm, Habesch, p. 229. no. 165.

—— *media*, Finsch & Hartl. Vögel Ostafr. p. 830. no. 433.

a. ♂. Zoulla. June 7.
b. ♂. Zoulla. June 7.
c–f. Zoulla. June 7.
g. Zoulla. June 8.
h. Zoulla. June 13.

Long. al.	Culm.
10″ 5‴–10″ 11‴	21″–25‴

The specimens *h* and *a* agree with the figure given in Dr. Rüppell's Atlas; other specimens have the front white, the vertex white with black shaft-stripes, the occiput and nape black; another specimen (*g*) has the front and forehead white mixed with black.—*O. F.*

[Iris almost black; beak orange; legs and feet black.

A series procured of mature and immature birds.—*W. J.*]

217. Sterna macroptera, Blasius.

Sterna macroptera, Blasius, Journ. f. Orn. 1866, p. 76.

—— *senegalensis*, Schleg. Mus. P. B. Sternæ, p. 16.

—— *dougalli*, Layard, B. S. Afr. p. 369.

a. Zoulla. August 17.

Long. al.	Rectr. ext.	Rectr. intern.	Culm.	Tars.	Dig. med.	
9″ 0‴	4″ 5‴	2″ 4‴	16‴	9″	$7\frac{1}{2}$‴	
8 10	5 0	2 8	15	9	8	. . . Table Bay.

The specimen agrees exactly with the description of Professor Blasius, who had an example from the Cape in the so-called winter dress, having only the vertex, occiput, and nape black, the sinciput and lores white, as also the sides of the head and all the under parts. The upper parts are ashy, the primaries brownish black, along the margin of the inner web broadly white; the shafts white; the tail-feathers delicate ashy, at the base of the inner web white; the outermost tail-feather on the outer web dark greyish brown; the smallest quill-coverts along the cubitus also greyish brown. Bill black, the base of the mandible tinted with reddish brown; legs reddish brown.

A similar specimen I got once in a collection of Mr. Layard from Table Bay, s. n. *St. dougalli*. It is undoubtedly the species noticed under this title in his 'Birds of South Africa,' being very common in Table Bay. Mr. Layard unfortunately does not describe African specimens, but copies his description from the true *St. dougalli* in M'Gillivray's 'British Birds.'

St. senegalensis, from the Gold Coast, in the Leyden Museum, where I have compared the specimens, belongs also to *St. macroptera*. The true *St. senegalensis*, Sws., has the bill and feet red.

This species has not been recorded from the Red Sea. *St. senegalensis*, Heugl. (Ibis, 1859, p. 351), refers to *St. albigena*, Licht.—*O. F.*

218. Sterna minuta, L.

Sternula minuta, Rüpp. Syst. Uebers. p. 140. no. 521; Heugl. Syst. Uebers. no. 731; *id.* Fauna des Roth. Meer. no. 316.

a. ♂. Zoulla. June 9.

An old male in full dress; quite agreeing with European ones. Bill reddish, with black apical third.

Long. al.	Rectr. ext.	Culm.	Tars.
6″ 9‴	2″ 4‴	13‴	7‴.—*O. F.*

[Beak yellow, tip black; legs and feet yellow.
Only one procured. *W. J.*]

219. Sterna ——, sp.?

♂. Zoulla. June 7 (no. 14).

Long. al.	Rectr. ext.	Rectr. intern.	Rostr.	Tars.	Dig. med.	
6″ 0‴	1″ 10‴	1″ 6‴	11½‴	7½‴	5½‴	
6 3	2 4	1 7	12½	6½	5	. . . . *balænarum.*

Front, forehead, lores, sides of the head, and all the under parts, including the under wing-coverts, white; vertex mixed with greyish-brown feathers; temporal, occiput, nape, and a spot before the eye brownish black; the upper parts, including the upper tail-coverts, delicate ashy grey; the smallest wing-coverts along the cubitus brownish; primaries dark greyish brown, on the inner web broadly margined with white nearly to the apical third; shafts of the primaries dark blackish brown, beneath white; tail-feathers ashy grey, on the basal half of the inner web white; the outermost tail-feather wholly white. Bill black; legs horn-brown; nails black.

The specimen is moulting, and apparently a young bird: I abstain therefore from declaring it to be new, although I am unable to refer it to any of the known species. It agrees in most respects with the winter dress of *St. minuta*, but differs in having the bill black and the legs dark. Can these differences be the consequences of age or season?

The black-billed, and nearly allied, *St. balænarum*, Strickl. (of which the Bremen Museum possesses a fine specimen from Walvisch Bay), has the shafts of the quills above and beneath all white.—*O. F.*

[Iris brown; beak black; legs black.

The only one procured.—*W. J.*]

220. STERNA PANAYA, Gml.

Sterna fuliginosa, Heugl. Ibis, 1859, p. 350.

—— *panaya*, Heugl. Fauna des Roth. Meer. no. 313; Finsch & Hartl. Ornith. Central-Polyn. p. 228; *id.* Vögel Ostafr. p. 833. no. 435.

a. Massuah. August 24.

Long. al.	Rectr. ext.	Rectr. int.	Culm.
8″ 3‴	4″ 2‴	2″ 9‴	1″ 6‴

An old bird in full dress. This species has been often erroneously confounded with *St. fuliginosa*. In the Berlin Museum are examples of both species from the Arabian coast of the Red Sea, labelled *St. fuliginosa*, Licht.

Von Heuglin's *Anous tenuirostris*, from the Guano island Bur-da-rebschi, is the true *A. stolidus*.—*O. F.*

[Beak black; legs and feet black.

Only one procured. *W. J.*]

221. HYDROCHELIDON FISSIPES (Linn.).

Hydrochelidon nigra, Rüpp. Syst. Uebers. p. 139. no. 514; Heugl. Syst. Uebers. no. 738; *id.* Fauna d. Rothen Meer. no. 315; Brehm, Habesch, p. 228. no. 167.

a. Zoulla. June 13.

[Beak black; legs and feet red.

The only one procured.—*W. J.*]

APPENDIX I.

Report to the Council upon his Proceedings in Connexion with the Abyssinian Expedition. By WILLIAM JESSE, *C.M.Z.S., Zoologist to the Abyssinian Expedition*[1].

GENTLEMEN.—It is with pleasure that I find myself in a position to lay before you a sketch of my proceedings during my recent journey with the late expedition in Abyssinia.

I should first like to state that, my late arrival on the scene of action having prevented me from accomplishing any thing like the work I wished to carry out, I eagerly

[1] Reprinted from P. Z. S. 1869 (p. 111 *et seqq.*), in order to show the exact route followed by Mr. Jesse. See also the map herewith, Pl. XXIII.—P. L. S.

seized upon an opportunity which presented itself, after the close of the campaign, of supplying the deficiencies thus occasioned.

I heard from Mr. W. T. Blanford, Geographer to the Expdition, that he, Capt. Mokeler (political officer), and Mr. Munzinger (H.B.M. Consul at Massowah) contemplated an excursion into the Bogos country; and I therefore wrote to the Consul begging his permission to make one of the party. This permission I subsequently received, and under these auspices found means to fulfil my mission more completely than I had anticipated.

On the 27th of January, 1868, I left England, and on the 24th of February we cast anchor in Annesley Bay. My arrangements on shore not being completed, I obtained a boat and crew from the Captain and started with a party to the head of the bay. I spent a couple of days here, examining the surrounding country and shooting. I procured specimens of the Naked-necked Francolin of the plains, one species of Hornbill, and a variety of other birds, the most important of which were eight specimens of the *Dromas ardeola*. These latter I especially wished to bring home, both as skeletons and in spirits. Unfortunately I could not carry out this intention, as, instead of returning safely in about two hours' trip to the 'Great Victoria,' we were nearly wrecked on the opposite shore; and the energies of our crew and selves were so severely tried by wind and rain that we with difficulty, and utterly exhausted, reached the fleet at the end of twenty-four hours. My specimens being spoiled, this was rather a discouraging commencement of my duties. I may here remark that I did not again obtain specimens of this bird until on my voyage home, at Suakim.

On the 27th I landed at Zoulla, and reported myself to General Stuart, there awaiting orders from the Commander-in-Chief. In a few days I received an intimation from his Excellency that I should find ample scope for my researches in the neighbourhood of Zoulla; it was, however, at that time impossible to prosecute them with any result, on account of the country being utterly devastated of wood and grass, offering but small opportunities for the zoologist. I obtained a few specimens, when an attack of sickness put an end to my endeavours, and compelled me to go on board the hospital ship. After some days I returned ashore; but in the course of a few hours I had a relapse, which induced me to leave the plain and move up towards the highlands. I was also disappointed in not meeting at Zoulla with the taxidermists Lieut. R. C. Beavan had given me reason to expect would be there; but before quitting the place I was fortunate enough to find a man who eventually proved of use to me in this department.

The country lying between the sea and the foot of the hills at Koomaylee was of the most barren description—to the seaward sandy, and nearer the hills broken ground, bearing, at the period of which I speak, but few traces of vegetation beyond those of low thorny mimosas and a stunted species of cypress. The plain is intersected by dry watercourses, running from the hills towards the sea. The presence of salt in the soil is to be detected from the sea even up to Koomaylee. Along the seashore are belts of

mangroves, affording shelter for many species of waterfowl. About an hour's ride from Zoulla towards the head of the bay are some hot springs, near a large grove of tamarisks. It was at this place I found spoor and dung of Elephants, three species of Antelope, and one of Bustard. The tenants of these barren districts, as far as I could ascertain, are Elephants (during the wet season), three species of Antelope, Wart-Hogs, a small Hare, one species of Hyena (probably the spotted), one of Jackal (probably *Canis anthus*), a Jungle-Cat (supposed to be identical with the Syrian Cat, of which I obtained a female and cubs), also a Jerboa-like Rodent. Scorpions are here numerous and large. For further details I shall refer to my collections at a later date. The character of the fauna of the plains is migratory, changing almost monthly from the hills to the plains, and *vice versâ*.

Proceeding up the passes, the only object worthy of special notice was the curious Rodent named by Mr. Blyth *Pectinator spekii*, the existence of which was made known to me by Mr. Blanford, and of which I obtained specimens. I should have procured more examples had not my taxidermist fallen ill with fever, and my own health continued far from good.

On arriving at Senafé I made that place my headquarters; and health rapidly improving, I set to work in the surrounding neighbourhood. Here, on one of my excursions, a companion who had separated from me was robbed of one of my rifles, and returned to camp stripped. Unfortunately, this happening out of my reach, I lost the opportuuity of procuring a skeleton of one of the inhabitants for our investigation in England. From Senafé I made a short trip to Addigerat, adding somewhat to my collection.

The rapid and successful termination of the Abyssinian campaign brought my labours to an unexpected close; but I continued working until Lord Napier's return to Senafé obliged me to return.

I here found the list of birds numerically increased. About Senafé and Rayrayguddy the "Koodoo," or "Aggazin" (*Strepsiceros kudu*), was found in small herds, and a fine young buck came into my possession alive—a present to the Society from Dr. Knapp, surgeon to the 25th Bengal Native Infantry. Unfortunately, two consecutive attacks of dysentery reduced the animal to such a state of weakness that it was impossible to save it—a fact which I much regretted, as I believe at that time the Society did not possess a specimen alive in their gardens. The "Klipp-springer" Antelope existed in these regions; and the "Beni-e-Israel" Antelope I found in the valleys at the back of Senafé, as also the "Wart-Hog."

Two species of "Ground Squirrel," one striated, the other not, and one species of Ichneumon came under my notice up the passes.

On the hills in the neighbourhood of Senafé I found another species of Hare, about equal in size to a threequarter-grown English Leveret, and of the same colour. A small sandy, strong-haired Rat I also procured a specimen of, which was unavoidably lost.

On the return journey I spent a few days at Undel Wells, with the view of obtaining a more special knowledge of the fauna of that elevation, having reason to believe it differed materially from that of the higher and lower zones. I did not, however, obtain much satisfactory information until my subsequent trip, at a later date, into Northern Abyssinia.

I arrived with the rearguard at Zoulla, where, after having made some additions to my collection, I prepared seven cases to be sent to England. As I have before stated, I obtained permission from H.B.M. Consul at Massowah to join him, Capt. Mokeler, and Mr. Blanford in an expedition into the Bogos country, which, although already explored by Brehm and Heuglin, I thought worthy of attention. Had opportunity offered, I should, in accordance with my instructions and my own wishes, have visited the country towards lake Assal. During the third week in June we were occupied in preparing for our proposed trip. We sent our baggage and provisions round to Massowah by buggalow, and our animals by land. We ourselves started on board the 'General Havelock' for Massowah, where we had to remain a few days arranging our affairs.

On the 22nd of June we left Massowah for the mainland, assembling our caravan at about four miles distance, at Monkooloo, and started the next morning with thirty-eight camels, eight horses, and about thirty men. We halted at Sahati, *en route* for Ailet, and heard there of Lions, but found no traces of them, so proceeded to Ailet the following day. Our camp here was situated on the banks of a wild nullah, watered by a hot spring at no great distance. This place is noted but too truly for its man-eating Lions and Panthers. It is a legend in the village "that no man dies in his bed." During one or two days I accompanied Capt. Mokeler (Mr. Blanford being lame) in pursuit of a lioness, tracks of which we had seen close to our tent, but with no success, Capt. Mokeler only obtaining one shot, which was without effect.

On the 27th of June, after some premonitory symptoms, I received a sunstroke, which completely put an end to my researches. My friend Mr. Blanford was more fortunate, and laid a good foundation for his subsequent collection. On the 29th, at about 12 o'clock at night, I was awoke from a sick bed, along with my companions, by shrieks of the most fearful kind. It was pitch dark; and we rushed out of our tents with our arms in our hands, to find our followers in a state of most dire terror and confusion, filling the air with cries of "the Lion, the Lion;" and then a dusky form was seen to bound away over the thorn fence and disappear in the darkness. After having in some degree quieted the fears of our people, we called the roll, and found that one of my gun-bearers, a Shunkgalla of huge proportions, lay dead in the midst of us, his throat bearing but too terrible marks of the manner in which the poor fellow had perished. I may add that, only the night before, Mr. Blanford's butler had been severely wounded in the head by the claws of what we supposed to be a Panther. These brutes had passed by our camels, horses, milch-goats, and fires without harming

any thing. In the morning, after a useless search for the brute of the preceding night, on which we naturally desired to wreak our vengeance, we buried the poor victim, covered him with a pile of stones, and left for Asoos. From here we started the same day, and halted at Kooserit.

On the 31st we left Kooserit, and, halting at Anagully, arrived in the evening at Kanzal, where I managed to stroll out, but I was still very ill. I fired at two Panthers without effect. At 6 P.M. on the 4th of July we started across the desert to Ain, on the river Lebka, which rises in the hills and flows across the plains to the sea. I stopped to look at a Bedouin village, consisting of about 100 mat huts. The inhabitants belonged to one of the nomad tribes which pasture their flocks during the wet season on the coast, moving up towards the highlands as the pasturage fails. We passed through the Ostrich-country, but we did not see any of these birds. During the night, the moon being up, we saw several herds of Antelopes.

We arrived at Ain at about 10 o'clock. In the afternoon I went out, and succeeded in procuring some specimens. This place is very prettily situated, forming quite an oasis in the desert. A bright stream runs through grass and high reedy jungle, bordered with tamarisks and other trees; a background of rugged barren hills, rising tier above tier, enhances the beauty of the scene.

On the 7th of July we left Ain for Mahabar; and when there I began to regain my health. Between Ain and Mahabar we found spoor of Elephants, evidently in a state of migration from the lowlands to the highlands. At Mahabar I added considerably to my collection, particularly by specimens of a small hawk, which I take to be the *Nisus sphenurus* of Rüppell. Mr. Blanford obtained several. The night before our arrival a native had been killed by a Lion. The animal left his track by the waterside, and it was taken up by Mr. Blanford and Capt. Mokeler without effect. I took up the track of a solitary Elephant with a like result. At 5 o'clock A.M. the next day we continued our march, halting at Gelamet for lunch, and arrived at 6 P.M. at Kokai, or the City of the Lions. Between Gelamet and Kokai the scenery improved greatly, exchanging rather stunted tamarinds and barren mimosas for the baba tree, or *Adansonia*, the cactus-like *Euphorbia*, and a dense jungle with a strong undergrowth of rank grass and aloes.

Here the climate was truly European, and, indeed, at night intensely cold. The fauna began to show the peculiarities which I had expected at Undel Wells, and in which I was disappointed; the transition was so sudden that on the first day I procured three species of Roller, a Parrot, and several other birds.

The next morning we found on inquiry that Elephants were in the neighbourhood; so, having supplied my taxidermist with materials for his day's work, I joined Capt. Mokeler and Mr. Blanford in an excursion in search of them.

I remained two days longer in this neighbourhood collecting with success, and then proceeded over the pass to Bejook on the river Anseba. Here I had a good week,

securing many specimens I had hitherto failed to obtain. On the 14th of July we went out in pursuit of a Rhinoceros we had heard of the day before, and which Mr. Blanford and I had the good fortune to shoot. The next morning I went out with my attendants and a *posse comitatus* of natives, to bring in the skeleton, and on arriving at the place I witnessed a scene precisely similar to that described by Sir Samuel Baker as taking place over the carcass of a Hippopotamus:—women, old and young, the former hideous, scratching, screaming, and fighting over the entrails, pulling furiously at these or at one another's hair, it mattered not which so that possession of the prey was secured; the men jabbering like jackals, fighting with sticks and knives, one and all knee-deep in filth and blood; so that between them, in about four hours, the skeleton was utterly bared of meat and skin, leaving not an atom for the Vultures.

On the 18th we had the first earnest of the rainy season, which was ushered in by a terrific storm of rain and hail, some of the hailstones being as large as small walnuts. The Anseba, an affluent of the Barca, from a dry bed with an occasional waterhole became a splendid river, varying from 50 to 100 yards in width, and flowing between banks of dense jungle and fine forest-trees. The tracks of Elephants, Rhinoceroses, and Lions were plentiful along the banks, so much so as to give the appearance of a place frequented by giant rabbits. The valley here varied from fifteen to twenty miles in width, the jungle and forest limiting itself to about a couple of miles on each side. The remainder of the ground was stony and barren, rising gradually towards the hills, and intersected by numerous nullahs running into the Anseba. Here we came in for a glimpse, on two occasions, of another species of Antelope, slightly larger than the "Beni-e-Israel." Unfortunately I had but a momentary view of it, and never succeeded in obtaining a specimen. On the 19th we left Bejook for Waliko, seeing on the road plenty of spoor of Elephants and Rhinoceroses; from the dung of the latter I collected a few Coleoptera. While at Waliko, finding a great scarcity of birds, I followed up more closely the tracks of the Rhinoceros, passing through very dense jungle that is never penetrated by sun or air, by means of their paths, which are from 2 to 3 feet broad, and formed like galleries in a mine, about 4 feet high—and so entering their dens, which are very curious, having the appearance of immense arbours; they vary in size from 13 to 20 feet square, and have in some cases a smaller retreat adjoining.

On the 24th, Mr. Blanford and I went out birding, and came upon fresh tracks of two Lions; they had followed Elephants' spoor for over two miles. The herd consisted of three old ones and a young one. The next day we left for Maragaz, where Capt. Mokeler shot a doe Koodoo, and I procured a few birds, one species of *Indicator*. Mr. Blanford obtained a rare Kingfisher, of which I also secured a specimen the next day. I also shot a pair of fine Ground-Hornbills (*Bucorax abyssinicus*), which I prepared as skeletons. The rains having set in, and the term of our excursion drawing to a close, we left Maragaz on the 31st of July on our return journey. When I arrived at Waliko, to which place Capt. Mokeler had preceded us, I found that he had been charged by a herd of some twenty Elephants, and had been forced to make good

his escape into a tree, after hard running, and having left a bullet in the head of a large bull. At a later date I found myself in the same disagreeable predicament, and under a like disagreeable necessity. At Waliko I found two species of crested Cuckoo and the English Cuckoo. I also obtained a Bateleur Eagle, two species of Tortoise, and a small Squirrel. I must here state that Waliko is not, as represented in the map, on the right side of the river, but on the left as you go down stream. From here we crossed over to Gabena Weld Gonfallon, or the river-plain, where Mr. Blanford and Capt. Mokeler killed a Rhinoceros. We returned by the old route to Kokai and Gelamet, and then branched off to Rairo; here we stopped two days collecting. On the 15th of August we moved on again to Mombar-Haratt-b', where we killed a Lioness, one out of four, the others running away. From this place we proceeded to Ain (where we reentered our former route), and quitted this on the 17th of August for Amba and Mai Wallet. Mr. Blanford and I stayed in Amba from the 19th to the 21st, trying to obtain specimens of the *Oryx beisa*. I unfortunately did not even see one; Mr. Blanford procured four specimens. We went from Amba to Massowah, which I left on the 27th for England.

I append a list of my collections, full information relative to which will appear at a later date:—

Skins of mammals, about	24
Skull of an aboriginal	1
Skull of African Elephant	1
Skeleton of Rhinoceros	1
Heads of Antelope	3
Skeletons of other mammals, about	8
Skins of birds, about	750
Birds and Mammals in spirit, about	20
Reptiles in spirit, about	6
Tortoises and Lizards, about	6
Fish, about	30
Crustacea, about	50
Lepidoptera, about	150
Coleoptera, about	200
Total number of specimens, about	1250

The following living specimens were also forwarded to the Zoological Society from Zoulla:—

Young Wild Cats[1]	2
Jerboa-like Land-Rats	2
Guinea-fowls	2

[1] These were the only specimens forwarded by Mr. Jesse that reached the Society alive. They were the young of *Felis maniculata*, Rüppell.—P. L. S.

APPENDIX II.

Supplemental Remarks on the Birds collected by Mr. Jesse.

By Otto Finsch, Ph.D., C.M.Z.S.

Since the foregoing pages were written nearly a year has passed, and during that interval the ornithology of this part of our globe has become enriched to an extraordinary extent by important contributions. I may mention that our work on the birds of East Africa, cited before, has been finished, and that von Heuglin's valuable publication on the ornithology of North-east Africa[1] made good progress. But of far greater interest to our present subject is the appearance of Mr. W. T. Blanford's 'Geology and Zoology of Abyssinia'[2]. The author, well known as a zealous and intelligent naturalist from his researches in India, accompanied the army, by permission of the Government of Bombay, from the beginning of December 1867 till it reached Magdala, and afterwards made, together with Mr. Jesse, the trip through the Bogos country. The ornithological portion of his most interesting book (pp. 285–443) proves that this branch of zoology was treated with especial care, and that his endeavours were successful in a high degree. Many valuable notes on habits, distribution, on the colours of the naked portions, eye[3], &c., testify the author's capacity for observing animals in a wild state; and we must also congratulate Mr. Blanford on the excellent and critical manner in which his work is executed.

The total number of species of birds collected by Mr. Blanford was 293, amongst which were 101 not obtained by Mr. Jesse; but we must not forget that Mr. Blanford arrived about two months earlier, that he traversed the highlands (the most interesting portion of Abyssinia so far as regards animal life) to a far greater extent than Mr. Jesse could do, and that the collection of the last-named naturalist contained, nevertheless, twenty-eight species not noticed by Mr. Blanford. These are the following:—*Vultur fulvus*, *Aquila imperialis*, *Bubo ascalaphus*, *Otus brachyotus*, *Strix flammea*, *Cypselus caffer*, *Cotyle fuligula*, *Trogon narina*, *Halcyon chloris*, *Hypolais olivetorum*, *Thamnobia albifrons*, *Saxicola stapazina*, *Cossypha gutturalis*, *Turdus pelios*, *Platystira senegalensis*, *Campephaga phœnicea*, *Amydrus tenuirostris*, *Cursorius chalco-*

[1] Ornithologie Nordost Africas, der Nilquellen u. Küsten-Gebiete des Rothen Meeres und des nördlichen Somal-Landes von M. Th. von Heuglin. Cassel: Theodor Fischer. This work is published in livraisons, of which thirteen have appeared, embracing the orders Accipitres and Passeres to the family Corvidæ, including 421 species.

[2] 'Observations on the Geology and Zoology of Abyssinia made during the progress of the British Expedition to that Country in 1867–68.' By W. T. Blanford. With Illustrations and Geological Map. London: Macmillan & Co. 1870.

[3] I cannot omit to remark that, singularly enough, in many cases the notes of the two naturalists relating to these subjects differ more or less. In some cases where the one says "iris brown," the other notices "iris red" or "yellow."

pterus, *Charadrius pecuarius*, *C. minor*, *Totanus stagnatilis*, *Himantopus autumnalis*, *Rhynchaspis clypeata*, *Larus leucophæus*, *Sterna minuta*, *S. macroptera*, *S.* ——, sp., and *Hydrochelidon fissipes*. Mr. Blanford's collection exceeds, therefore, that of Mr. Jesse by seventy-two species. Five species[1] are described as new, and seven are excellently figured in coloured plates.

Having altered my views in respect to some of the species in consequence of the better knowledge gained in preparing our great work since last year, it is necessary to append some corrections to the preceding paper. After having done so, I think it will be interesting to enumerate those species of Mr. Blanford's not collected by Mr. Jesse, in order to complete the list of birds obtained and observed during the Abyssinian expedition by the indefatigable naturalists attached to the British Army. The total number of species of birds amounts to 322, being nearly half of all the species supposed to occur in the whole of North-eastern Africa, a result which, when we consider the comparatively short stay, must surprise everybody who is acquainted with the difficulties of collecting in a tropical climate and under such circumstances.

Page 200. no. 3. GYPAETUS BARBATUS.

Mr. Blanford's remark (*l. c.* p. 299) that the Abyssinian *Lammergeyer* is distinguished not only by the nudity of the basal portions of the tarsus, but also by its "very much smaller" size, seems to be, indeed, correct, as far as I can judge from a specimen from the Pyrenees in the Bremen collection, which has the wing 2′ 7½″ long, and the tail 20″. Von Heuglin gives the length of the wing of *Gypaetos barbatus meridionalis* (!) in accordance with me as 27–28″, and that of the tail as 17–18½″.

P. 202. no. 7. BUTEO AUGUR.

In the Appendix to our "Vögel Ostafricas" (p. 853) I declared positively the identity of *B. auguralis*, Salvad. (Atti della Societ. Ital. di Scienze Nat. viii. 1866), with this species, after a careful comparison of the type specimens which Dr. Salvadori was kind enough to send us. It may be allowed me to correct this as a mistake; for, after receiving the type specimens of Rüppell's *B. augur* through the kindness of Mr. Erckel, of the Senckenbergian Museum, it was evident that the *B. augur* in the Bremen collection (described in our work, p. 58, "Ein jüngerer Vogel") was by no means the true *B. augur*, but Salvadori's *B. auguralis*. Von Heuglin (Ornithol. Nordost Africas, p. 93) has distinguished both species accurately, but thinks that *B. auguralis* is identical with *B. anceps*, Brehm (Naumannia, 1855, p. 6), the type of which he seems to have compared and described in the Berlin Museum. To judge from the description of Brehm, who does not say where his type was deposited, I strongly inclined to believe it might have been a specimen of *B. desertorum*; but von Heuglin assures me it

[1] The descriptions of these new species have been already published in the 'Annals and Magazine of Natural History' for November 1869, pp. 329 et 330.

is evidently a younger bird of *B. auguralis*. Not having seen the type specimen, and still feeling some doubts, I wrote several times to my friend Dr. Brehm in order to satisfy myself whether the description of his *B. anceps* was indeed based upon the specimen now in the Berlin Museum. I much regret to say that I have not received an answer from my friend, who, occupied with extensive popular publications, seems to have partially lost his interest for pursuits of a purely scientific kind. I therefore am unable to decide whether the species should be called *B. anceps*, or, as I suspect, *B. auguralis*. In any case this species, although allied to *B. augur*, is well distinguished, not only by its inferior size, but also by the very different coloration. The crop and breast are dark red-brown, the remaining underparts white with conspicuous dark cordiform spots; under tail-coverts and thighs uniformly white; the greater portion of the inner web of the secondaries is white, with five or six narrow, incomplete, dark cross bands, whereas in *B. augur* there are from nine to eleven complete dark cross bands.

Long. al.	Caud.	Rostr.	Tars.	Dig. med.	Ung.	
16″–17″	7″ 2‴–9″ 0‴	12‴ –13‴	3″ 0‴–3″ 6‴	17‴–20‴	9‴–10½‴	. . . *B. augur* (after five type spec. in the Senkb. Mus.)
13½–14½	6 4 –7 2	10½ –11	2 7 –2 9	15 –17	7 – 8	. . . *B. auguralis* (after two type spec. in Turin.)

P. 203. no. 8. MILVUS MIGRANS.

Mr. Blanford (*l. c.* p. 300) also records the occurrence of this species in Abyssinia, where it is "extremely common everywhere, both on the highlands and lowlands." Von Heuglin (Orn. N.-O. Afr. p. 98) is therefore evidently wrong in supposing it to be only a winter visitor in Egypt.

P. 216. no. 27. CYPSELUS AFFINIS.

Mr. Blanford, who met with this species in May breeding under rocks in the Sooroo Pass, is wrong in saying "Brehm states that this bird breeds on palms;" for Brehm does not say so positively, but only that it is probable (Habesch, p. 273).

P. 230. no. 55. NECTARINIA JARDINEI.

Mr. Blanford also obtained a single specimen of this rare Sun-bird from Captain Sturt; it was shot at an elevation of between 5000 and 6000 feet below Senafé. Von Heuglin never met with this species, and enumerates it in his work (Orn. N.-O. Afr. p. 227) only as having been informed of its occurrence privately by myself.

P. 231. no. 59. CAMAROPTERA BREVICAUDATA.

Mr. Blanford (*l. c.* p. 376) confirms the fact that the female is considerably smaller, as already noticed by Prof. Sundevall. As it is discovered that the "Olivert" of Levaillant (t. 125), *Sylvia brachyura*, Vieill., is not an *Eremomela*, but a true *Camaroptera*,

Sundevall's name, *C. olivacea*, ought to be used instead of *brevicaudata* (*vide* Vögel Ost-Africas, Append. p. 862).

P. 232. no. 61. HYPOLAIS ELAËICA.

I suspect that this species will prove to be identical with *Sylvia rama*, Sykes (Proc. Zool. Soc. 1832, p. 89), but not having seen Indian specimens I cannot settle the question. *Sylvia opaca*, Licht., from Western Africa, is also scarcely separable. Von Heuglin describes this species as *Acrocephalus pallidus* (Hempr. & Ehrb. Orn. N.-O. Afr. p. 294).

P. 240. no. 80. ANTHUS SORDIDUS.

The Rev. H. B. Tristram (Ibis, 1869, p. 437), who has had an opportunity of inspecting the specimens brought home by Mr. Blanford, calls attention to the fact that specimens from South Africa and India (*Corydalla sordida*, Blyth) are as widely different as *A. gouldi* from Western Africa, and therefore fully confirms the opinion expressed by me long before. Mr. Blanford (p. 382) mentions that *A. sordidus* varies considerably in colour and size; but I do not feel quite sure whether he did not confound another species with it.

P. 244. no. 87. CRATEROPUS LIMBATUS must be united with *Cr. leucopygius*, no. 86.

Mr. Blanford (Geol. & Zool. Abyss. p. 371) also does not hesitate to treat them as identical.

P. 247. no. 93. PLATYSTIRA PRIRIT must stand as *Platystira affinis*, Wahlberg (Journ. f. Orn. 1857, p. 3); *Pl. pririt*, Blanf. p. 345. no. 94.

Having lately compared specimens from South Africa (the true *Pl. pririt*, Vieill.), I have convinced myself of the difference of this species, it being considerably larger, and the female quite differently coloured. The males described in our work (p. 315) from Damaraland and Gabon are unquestionably *Pl. affinis* (as corrected, p. 866), whereas the description of the female (extracted from Levaillant) belongs to the true *Pl. pririt*. Von Heuglin (Orn. N.-O. Afr. p. 449) has since separated the north-eastern form as new (sub nom. *Pl. orientalis*), and it is not impossible that they are specifically distinct; especially the females of the north-eastern form and the *Pl. affinis* seem to differ considerably. The female of the latter I know only from a careful description sent to us by the kindness of Professor Sundevall; but I have not seen a female from the north-east—the specimens with a chestnut guttural cross band (which von Heuglin keeps as females) being apparently young males, as stated by Mr. Jesse. The old males in Mr. Jesse's collection I could not distinguish from our southern and western specimens; and as von Heuglin also does not explain the differences, I am still uncertain whether the separation into two species will be right. To decide the question a large series from various localities is necessary.

P. 247. no. 94. PLATYSTIRA SENEGALENSIS.

This species is distinguished from *Pl. affinis*, besides a difference in the white markings of the tail-feathers, by having a broad well-marked white supercilium from the nostrils to the nape. In the old male the upper surface of the head is black, in younger males and females slate-coloured. A male in the Turin Museum, collected by Marchese Antinori, on the Bahr el Ghasal (type of his *Muscicapa torquata*, Catal. descr. p. 46), agrees in every respect with our Senegal specimen (as described, p. 318); another specimen, marked female, in Turin, collected by Dr. Bussa in North-east Africa, has a chestnut pectoral band like the specimen in Mr. Jesse's collection; but the upper surface of the head is dark grey, the white supercilium as strongly developed as in the old male.

P. 253. no. 102. LANIUS FISCUS must stand as *Lanius humeralis*, Stanl. in Salt's Trav. App. p. 51 (1814); Blanf. p. 338. no. 82.

P. 257. no. 111. PHOLIDAUGES LEUCOGASTER.

Mr. Blanford, who places this species in the Indian genus *Grandala* (p. 367. no. 142) (an opinion with which I cannot agree), confesses that the thrush-like-coloured specimens are females, so that there remains not the slightest doubt concerning this point.

P. 272. no. 139. GALERITA CRISTATA.

Of this widely distributed species we have given a full account in our 'Vögel Ostafrikas' (p. 460). *Alauda* (*G.*) *arenicola*, Blanf. (p. 387), seems to be, as far as I can judge, nothing else than a dark-coloured specimen of *G. cristata*. *G. lutea*, Brehm (Habesch, p. 218), will probably prove also to be *G. cristata*, but ought not to be confounded with *G. lutea*, Brehm, from Senahr and Cordofahn (Naumannia, 1858, p. 209), which apparently is a well-marked species.

P. 273. no. 141. ALÆMON JESSEI must be *A. desertorum*, Stanl.

Further researches have convinced me that this species is not separable from the true *A. desertorum*, as already noticed by the Rev. H. B. Tristram (Ibis, 1869, p. 435) and Mr. Blanford (p. 385), and corrected by myself in the Appendix to our new work (p. 869).

The comparison of the types of *Certhilauda doriæ*, Salvad., from Bender Abbas, in Persia, in the Museum of Turin, showed me at once its identity with my *A. jessei*. Neither the greyish-brown colour of the upper parts, nor the thickly spotted breast is a constant character; and amongst a larger series all intermediate forms will be shown. Specimens from Arabia in the Berlin Museum are still more spotted than the so-called *A. jessei*. The size, especially the length of bill, also varies very much. Of all these

peculiarities I have given a full account in our work, where also the synonymy is accurately explained.

P. 279. no. 150. BUCEROS LIMBATUS must stand as *Buceros hemprichii*, Ehrb. (1828).

Mr. Blanford has first pointed out that *B. hemprichii* is not the female of *B. nasutus* as Drs. Hartlaub and Cabanis suggest; and I agree with him, although I stated the contrary in our work (Vög. Ostafr. p. 487). After consulting the short description by Hemprich and Ehrenberg (Symb. Phys. fol. a a 3), I think there can be no doubt that Mr. Blanford is right, the length of bill being given as 4″ 7‴, which is only referable to the species published later by Rüppell as *limbatus*.

P. 284. no. 162. CENTROPUS MONACHUS.

Mr. Jesse has already expressed his doubts as to the identity of *C. monachus* and *C. superciliosus*; and Mr. Blanford (*l. c.* p. 315) positively declares their distinctness, *C. superciliosus* not being the female or younger state of *monachus*, as I erroneously suggested. Both species "were founded on fully adult specimens; and not only are they quite different in plumage, but their habitat is entirely distinct, *C. monachus* being only found in the temperate region of Abyssinia, while *C. superciliosus* is equally confined to the tropical and subtropical parts of the country." (Blanf.) Although I am still unable to distinguish *C. superciliosus* from the similar eye-striped specimens from Western and Eastern Africa, I yield to one who has observed these two birds in the wild state. Nos. 1898 and 919 (p. 285) therefore must stand as *Centropus superciliosus*, Rüpp.

P. 289. no 173. TURTUR ALBIVENTRIS.

We have given a careful monograph of all the African members (six) of the genus *Turtur* in our last work. Specimens from Damaraland we have separated as *Turtur damarensis*, Finsch & Hartl. (p. 550), and those from the Cape as *Turtur capicola*, Sundev.

P. 297. no. 197. ARDEA GULARIS.

Mr. Blanford remarks on this species:—"As shown by Mr. Blyth (Journ. As. Soc. Bengal, 1855), there can be no question of the identity of this species with the Indian form (*A. asha*, Syk.). I have compared my specimen carefully with those in the Calcutta Museum." Unfortunately I have not yet had an opportunity of examining specimens from the Indian continent; and I have considered these identical with *A. sacra*, Gml. This latter, of which I have seen a great many specimens from various parts of the Sunda Islands, the Moluccas, Australia, and the Pacific, is constantly different from the African *A. gularis* in having only a more or less narrow white line from the chin along the fore part of the neck, whereas in *A. gularis* the white is extended on the sides

of the head and throat; besides, in *A. gularis* the naked portion of the tibia is constantly further extended (21–31‴, in *A. sacra* 12–18‴). By this latter character the white specimens of both species are also distinguishable.

P. 297. no 198. ARDEA ATRICAPILLA.

The Rev. H. B. Tristram concurs in Mr. Gurney's opinion (Ibis, 1869, p. 437) that *A. javanica*, Horsf., is inseparable from *A. atricapilla*, adopting the views of Dr. von Schrenk, who several years ago (Vögel des Amurlandes, pp. 437–447) maintained that all the members of the subgroup *Butorides* (*A. virescens*, Gmel., of North America, *A. scapularis*, Ill., of South America, and two species mentioned before) belong only to one species. Notwithstanding their near relationship, I must declare my own belief that they are different species, of as much value as many others. In respect to the Indian and African species, I find that *A. atricapilla* is always distinguishable from *A. javanica* in having the middle line along the fore part of the neck always tinged with fulvous, whereas in *A. javanica* this portion is uniformly greyish like the other parts of the neck and body. Occasionally a faint tinge of pale fulvous is seen in very old specimens of *A. javanica*. A full account of the differences of these two species will be found in our 'Ornithologie der Viti, Samoa and Tonga Inseln,' p. 210, and 'Vögel Ostafricas,' p. 703.

List of those Species of Birds collected by Mr. Blanford which were not obtained by Mr. Jesse.

VULTUR RÜPPELLI, Natt., p. 285. no. 1; Finsch & Hartl. Vögel Ostafr. p. 33, note.

Localities: Anseba valley, at 4000–4500 feet, Rairo 3000 feet, high plateaux of Wadela and Dalanta.

NEOPHRON PERCNOPTERUS (L.), p. 287. no. 2; Finsch & Hartl. Vögel Ostafr. p. 33. no. 2.

"From the sea-level up to 10,000 feet, and equally abundant near the camps on the Wadela plateau and on the shores of Annesley Bay."

FALCO SACER (? Gml.).

"Gelamet in the Lebka valley."

There is some doubt about the determination of this species.

TINNUNCULUS CENCHRIS (Naum.), p. 290. no. 8.

"Not rare on the Abyssinian highlands."

NISUS TACHIRO (Daud.), p. 291. no. 10; Finsch & Hartl. Vögel Ostafr. p. 78. no. 27.

"Goona-goona, near Senafé."

The union of *N. unduliventer*, Rüpp., with the South-African *N. tachiro*, as first pointed out by us, is confirmed by Mr. Blanford. The single skin collected by him is that of a very old male in superb plumage, and has been determined by M. J. Verreaux and Mr. Gurney. "A specimen of *N. tachiro*, from South Africa, in the British Museum, agrees well with that from Abyssinia." (Blanf.)

Sagittarius serpentarius (Miller); Finsch & Hartl. Vögel Ostafr. p. 93. no. 34. *Gypogeranus serpentarius*, Blanf. p. 297. no. 17.

"Seen only twice on the highlands."

Circus æruginosus (L.), p. 301. no. 21.

"Occasionally seen on the highlands."

Circus cineraceus (Mont.), p. 301. no. 23.

"In the Samhar, and abounded on the highlands in the winter and spring."

Bubo maculosus (Vieill.); Finsch & Hartl. Vögel Ostafr. p. 103. no. 40. *B. cinerascens*, Guér., Blanf. p. 302. no. 25.

"Only once met with this bird, near Antalo."

Contrary to the views of Messrs. J. Verreaux and Gurney, I do not take the north-eastern form to be specifically distinct from the southern *B. maculosus*.

Caprimulgus nubicus, Licht. p. 336. no. 78.

"A single specimen obtained near Zulla."

Having compared the types of Rüppell's *C. infuscatus* with *C. nubicus*, I can speak with certainty of their identity; but I must protest against the uniting of *C. tamaricis*, Tristr., as proposed by Mr. Blanford. This latter is a well-distinguished species, and nearest allied to *C. asiaticus*, Lath. (*vide* Vögel Ostafricas, p. 125. no. 49).

Caprimulgus tristigma, Rüpp. p. 337. no. 80.

"Near Antalo."

Cypselus æquatorialis, Müll. p. 334. no. 75.

"Not rare around Senafé in February and March."

Hirundo alpestris, Pall., p. 346. no. 97.

"At Koomaylee in February."

Hirundo melanocrissus, Rüpp., p. 346. no. 96.

"Seen at low or moderate elevations."

HIRUNDO RUSTICA, L., p. 347. no. 99; Finsch & Hartl. Vögel Ostafr. p. 134. no. 55.

"Common everywhere. This bird abounded on the shores of Annesley Bay in the middle of June." (Blanf.)

Von Heuglin also states this species to be resident along the Red Sea.

HIRUNDO FILIFERA, Steph.; Finsch & Hartl. Vögel Ostafr. p. 141. no. 58. *H. ruficeps*, Licht., Blanf. p. 348. no. 101.

Mr. Blanford obtained a single pair near Aguala, halfway between Adigrat and Antalo, and remarks, "The outer tail-feathers are very much shorter than is usual in Indian specimens, and I am far from convinced that the species are identical." The length of the outer tail-feathers is noticed as 4·6; this is only a little smaller than in Indian specimens.

CHELIDON URBICA (L.), p. 349. no. 103.

"A single specimen obtained at Koomaylee in February."

COTYLE CINCTA (Bodd.), p. 349. no. 104; Finsch & Hartl. Vögel Ostafr. p. 144. no. 59.

"On the shores of the Lake Ashangi in April, and about a fortnight later on the banks of a stream near Antalo."

COTYLE RUPESTRIS, Scop., p. 350. no. 105.

"A very common bird in the rocky passes, and found almost from the sea-level to 8000 feet." It is singular that Von Heuglin notices only *C. obsoleta*, Cab., from neighbouring localities in Abyssinia; and one would be inclined to believe Mr. Blanford had confounded the species, did he not say "a specimen from Senafé differs in no respect from others brought from Southern Europe."

The type specimens of *C. obsoleta* which I saw in the Museum Heineanum, I found difficult to distinguish from *C. rupestris*.

COTYLE MINOR, Cab., p. 350. no. 106; Finsch & Hartl. Vögel Ostafr. p. 147. no. 61.

"Seen in countless swarms on Lake Ashangi in April."

The three allied species *C. riparia*, *C. minor*, and *C. paludicola*, Vieill., are treated of in our work on the birds of East Africa, where we state that they occur nearly over the whole of Africa. Mr. Tristram (Ibis, 1869, p. 436) expresses his opinion that under the name of *C. palustris* have been confounded two species—one from the north, the other from the south. The northern bird, which Mr. Tristram obtained by the Dead Sea, and received from Egypt and Abyssinia, being larger than the southern bird, and having a large white spot on the inner web of each of the rectrices, except the outer and middle covering pair, is undoubtedly referable either to *C. obsoleta*, Cab., or

C. fuligula, and not to *C. paludibula*, Rüppell, who under this name confounded *C. riparia* and *C. minor*.

ALCEDO SEMITORQUATA, Sws., p. 325. no. 65; Finsch & Hartl. Vögel Ostafr. p. 859. no. 451.

"One specimen from Adigrat on the highlands of Tigré."

ALCEDO CRISTATA, L.; Finsch & Hartl. Vögel Ostafr. p. 167. no. 74, et p. 860. *Corythornis cyanostigma*, Blanf. p. 324. no. 64.

"Common near Agula and Dongolo."

Mr. Sharpe has lately become convinced that the true *A. cristata* of Linné is the Madagascar species, and that the African form must bear Rüppell's name (*cyanostigma*); but, as I have noticed already in our work, Linné's *A. cristata* ("habitat in India orientali") based upon Seba's figure and *Ispida philippensis cristata*, Brisson (Orn. iv. p. 483. t. 37. f. 3), must remain for ever obscure, as it is not to be referred satisfactorily to any known species.

CERYLE RUDIS (L.), p. 325. no. 66; Finsch & Hartl. Vögel Ostafr. p. 175. no. 78.

"Seen near Magdala and Dongolo, at about 7000 feet above the sea; a rare bird."

MEROPS NUBICUS, Gml., p. 321. no. 57; Finsch & Hartl. Vögel Ostafr. p. 182. no. 80.

"A large number were collected about one spot close to the hot spring of Atzfut, on the shores of Annesley Bay. Mr. Jesse also met with it only once, and in the same neighbourhood." (Blanf.)

CISTICOLA AYRESI, Hartl.; Finsch & Hartl. Vögel Ostafr. p. 231, note. *Hemipteryx abyssinica*, Heugl. Ibis, 1869, p. 138. *Cisticola abyssinica*, Blanf. p. 376. no. 155.

The comparison of the type specimen of *H. abyssinica*, Heugl., from Adoa, with the type of *C. ayresi* in the Bremen Museum, proved immediately their identity without the slightest doubt. Whether Mr. Blanford's specimen, shot near Fokada, belongs indeed to this species is to be doubted, the length of wing being noticed as 2·11 (probably this is a misprint, and should be 1·11; then it would be right).

DRYMOICA GRACILIS (Licht.), p. 373. no. 148.

"Very common amongst the low bushes of the plain country near Zulla. Mr. Jesse found the nest, with two young birds apparently only hatched a few days before, on June 12." (Blanf.)

DRYMOICA MYSTACEA, Rüpp., p. 373. no. 149.

"Shot on the highlands at Adabagi, two marches south of Adigrat."

Drymoica pulchella (Rüpp.), p. 374. no. 150.

Drymoica levaillanti, Smith. *Graminicola levaillanti*, Blanf. p. 375. no. 152. *Drymoica cantans*, Heugl. Ibis, 1869, p. 96.

I am not quite sure whether *D. levaillanti* and *D. cantans* are really identical, finding that specimens of the former species from South Africa vary considerably in size and colour.

Drymoica robusta, Rüpp. *Graminicola robusta*, Blanf. p. 375. no. 153.

"A single specimen at Adigrat."

Eremomela griseoflava, Heugl. p. 355. no. 116, t. 3. f. 1 (opt.).

In the Anseba valley.

Phylloscopus abyssinicus, Blanf., nov. spec., p. 378. no. 158, t. 3. f. 2.

Most nearly allied to *Ph. trochilus* (L.), but a different species, which I had the pleasure of seeing when Mr. Blanford visited our Museum. Discovered about Mayen, in the pass below Senafé, and at Senafé, Halai, and other places on the highlands.

A specimen from the plateau of Wogara, which Von Heuglin (Orn. N. O. Afr. p. 299) mentions sub nom. *Ph. rufa*, belongs to the true *Ph. trochilus*, as I convinced myself on examining it.

Hypolais languida, H. & Ehrb., p. 379. no. 162.

"In the Lebka valley and Samhar."

Whether this species is really separable from *H. olivetorum*, Strickl., I am unable to say, not having had before me a series large enough, the only way to settle the question. The specimen collected by Mr. Jesse I determined to belong to *H. olivetorum*, finding no important difference between it and a specimen from Greece. I must remark that the length of the primaries is by no means constant, but differs in individuals.

Sylvia melanocephala, Gml., p. 379. no. 160.

"A single specimen near Rairo."

Saxicola frenata, Heugl., p. 362. no. 132; Finsch & Hartl. Vögel Ostafr. p. 258 (note).

"On the Wadela plateau, near Saintora, and Gazoo, at an elevation of 10,500 feet."

Dr. Rüppell erroneously considered this species to be the male of *S. isabellina*. Other specimens in the Senckenbergian Museum were labelled *S. albigularis*, a name never published by Rüppell.

SAXICOLA DESERTI, Rüpp., p. 362. no. 133[1]; Finsch & Hartl. Vögel Ostafr. p. 255. no 119.

"Only seen close to the coast. In December and January about Annesley Bay, but not seen in May, June, July, or August."

The comparison of specimens of *S. atrogularis*, Blyth, sent by Dr. Salvadori, has convinced me of the identity of this with the Indian species.

SAXICOLA LUGENS, Licht., p. 363. no. 134.

"Seen in the temperate region on the highlands, where it appears to replace *S. deserti* (Blanf.). According to Von Heuglin, found in the deserts of Egypt and Arabia."

Von Heuglin's newly erected *S. finschi* (Orn. N. O. Afr. p. 350) is based only on the single specimen from Siberia in the Bremen Museum, which, showing some differences from *S. leucomela*, Pall., I described previously in my MS. notes, but without intending to publish it as a new species. I am informed by Von Pelzeln that the two specimens from the Sakarah desert (near Cairo) in the Vienna Museum, mentioned by Von Heuglin as being identical with the Siberian specimens, belong to *S. xanthomelæna*, Ehrb.

PRATINCOLA RUBETRA (L.), p. 364. no. 137.

"At Rairo, in Habab (3000 feet), in the middle of August."

PRATINCOLA PASTOR, Strickl., p. 364. no. 138.

"Not rare on the highlands."

PRATINCOLA HEMPRICHI, Ehrb., p. 364. no. 139.

PRATINCOLA SEMITORQUATA, Heugl., p. 365. no. 140. t. 5 (♂ ♀, opt.).

Localities: Adigrat, Antalo, Lake Ashangi; never below 8000 feet.

The female has been already figured in the Atlas of Ferret and Galinier, Voyage en Abyssinie, Zoologie, pl. 12. fig. 2.

RUTICILLA SORDIDA (Rüpp.). *Pratincola sordida*, Blanf. p. 366. no. 141.

This aberrant species, which Mr. Blanford did not meet with below 9000 feet, I take to be more nearly allied to *Ruticilla* than to *Saxicola* or *Pratincola*.

[1] A very nearly allied species is *Saxicola albomarginata*, Salvad. (MS.), in nearly every respect resembling *S. deserti*, but distinguishable at once from having all the tail-feathers tipped with white.

The type specimen (male), collected by the Marchese Orazio Antinori in the Sahara of Tunis, is now in the Museum of Turin, whence I received it for inspection through the kindness of Dr. Salvadori. I have compared it with several specimens of *S. deserti*.

RUTICILLA SCOTOCERCA (Heugl.). *Saxicola scotocerca*, Heugl. Orn. N. O. Afr. Livrais. 9–11 (November 1st, 1869). *Ruticilla fuscicaudata*, Blanf. Ann. & Mag. N. H. (November), 1869; *id. l. c.* p. 359. no. 125, t. 4 (opt.).

"A single specimen on the hills between the Anseba and Lebka valley (4000 feet)."

This curious bird is somewhat anomalous, but apparently rather a *Ruticilla* than a *Saxicola*. Some years ago I examined the type specimen of Heuglin's *S. scotocerca*, from Keren, labelled at that time *Saxicola infuscata*, and therefore easily recognized the bird brought home by Mr. Blanford.

ZOSTEROPS EURYOPHTHALMA, Heugl. *Z. poliogastra*, Heugl. Ibis, 1861, pl. 13; Hartl. Mon. *Zosterops*, J. f. Orn. 1865, p. 9; Blanf. p. 354. no. 114.

The single specimen obtained by Mr. Blanford at Dongola is undoubtedly referable to this species, as I feel sure after having compared it. The figure in 'The Ibis' is not quite true, showing the yellow supercilium extended to the temporal region.

Von Heuglin having first named this species *euryophthalma*, had no right to change this appellation.

MOTACILLA ALBA, L., p. 380. no. 165; Finsch & Hartl. Vögel Ostafr. p. 259. no. 121.

"Common both on the highlands and near the coast. On the 1st of May there were still specimens on the highlands around Lake Ashangi, but only very few remained." (Blanf.)

MOTACILLA SULPHUREA, Bechst., p. 381. no. 166.

"Not common. Only one specimen obtained in the Lebka valley."

BUDYTES MELANOCEPHALA, B. CINEREOCAPILLA, et B. CAMPESTRIS, pp. 381, 382, nos. 167, 168, et 169, are merely varieties of *Motacilla flava*, of which I have given a full account in our work (Vögel Ostafr. p. 268. no. 123).

ANTHUS CAMPESTRIS?, p. 383. p. 172.

Mr. Blanford is unable to draw a precise line between this species and *A. sordidus*. Not having seen his series, I can only say that I still take them to be distinct species.

MACRONYX FLAVICOLLIS, Rüpp., p. 384. no. 173; Finsch & Hartl. Vögel Ostafr. p. 278 (note).

"On the highest part of the Dalanta plateau and near the crest of the Wandaj pass; never observed below 10,000 feet."

TURDUS OLIVACINUS, Bp., p. 357. no. 120; Finsch & Hartl. Vögel Ostafr. p. 280 (note).

Localities: Senafé, Adigrat, Lake Ashangi.

PETROCINCLA CYANEA (L.), p. 357. no. 121.

"On the highlands."

PETROCINCLA RUFICINEREA (Rüpp.), p. 358. no. 123.

"By no means rare on the highlands, and found as low as about 4500 feet."

MALACOCERCUS ACAZIÆ (Licht.), p. 372. no. 147.

"About Zoulla, but rare."

ORIOLUS MONACHUS (Gmel.), p. 369. no. 144; Finsch & Hartl. Vögel Ostafr. p. 293. no. 137.

"Near Antalo."

LANIUS ISABELLINUS, H. & Ehrb. p. 339. no. 83.

"Common on the coast in December, January, and February."

AMYDRUS BLYTHII, Hartl., p. 399. no. 191.

"Abundant around Mayen at an elevation of from 3000 to 4000 feet in the pass below Senafé."

After having examined and compared Mr. Blanford's specimens, I have convinced myself that we were wrong in uniting this species with *A. rueppellii* (Vögel Ostafr. p. 382)—an error corrected already by us (p. 867).

PENTHETRIA LATICAUDATA (Licht.). *Coliupasser laticauda*, Blanf. p. 405. no. 201.

"Near Antalo and Agula."

ORTYGOSPIZA POLYZONA (Temm.), p. 408. no. 206. *O. fuscocrissa*, Heugl. Journ. f. Orn. 1863, p. 18.

Mr. Blanford got this species from Senafé, through Captain Sturt.

Von Heuglin has confounded with this bird (Journ. f. Orn. 1868, p. 4) the nearly allied *O.* (*Fringilla*) *atricollis*, Vieill. (=*Amadina lunulata*, Temm., Hartl. W. Afr. p. 148), which is readily distinguished, wanting the white on the chin and around the eyes; the whole face is black. We possess this species from the Cama, in Western Africa, and from the White Nile; a specimen from Bongo in von Heuglin's collection, which I examined, proved to be also *O. atricollis*.

HYPHANTORNIS MELANOTIS (Guér.), p. 403. no. 196.

"Common throughout the highlands, and seen at nearly 10,000 feet, though generally more common at a rather lower elevation."

PYROMELANA CAPENSIS (L.), Finsch & Hartl. Vögel Ostafr. p. 416. no. 216. *Euplectes xanthomelas*, Rüpp., Blanf. p. 405. no. 199.

The reasons for which we united the smaller north-eastern race (*P. xanthomelas*) with the larger southern are pointed out in our work as cited above.

Mr. Blanford found this species on the Wandaj Pass (at 10,500 feet elevation), at Santara, in Dalanta, and at Ashangi.

ESTRELDA QUARTINIA, Bp., p. 409. no. 209.

"Obtained near Senafé."

Having compared type specimens of *Estrelda ernesti secundi*, Heugl., I feel quite sure of their identity with *E. quartinia*, Bp., as pointed out by Mr. Blanford.

PASSER CANICAPILLUS, Blyth, p. 412. no. 215.

"In small flocks both in the woods and around villages, in the Lebka Valley and its neighbourhood, at 3000 to 4000 feet. Especially abundant at the village of Rairo."

Mr. Blanford does not seem quite sure as to the identity of this species, having put against it a note of interrogation. Singularly enough neither von Heuglin nor Dr. Brehm has met with this bird, which seems to differ from *Xanthodina dentata* chiefly in having the eyebrow cinnamon instead of pale rufous, and in the head being more grey. I take it as not quite impossible that these differences may depend upon the stage of plumage, *P. canicapillus* of Mr. Blanford and *X. dentata* of Mr. Jesse having been collected at nearly the same localities.

FRINGILLA TRISTRIATA, Rüpp., p. 413. no. 217; Finch & Hartl. Vögel Ostafr. p. 449. no. 238.

"Very common throughout the highlands."

CRITHAGRA FLAVIVERTEX, Blanf. p. 414. no. 220. pl. 7 (opt.).

This is an interesting and undoubtedly new species, which I had the pleasure of seeing in Mr. Blanford's collection when here. It escaped von Heuglin's observation.

SERINUS CITRINELLOIDES, Rüpp., p. 414. no. 221.

"Near Senafé."

SERINUS NIGRICEPS, Rüpp., p. 415. no. 222.

"Very common on the passes above 9000 feet."

ALAUDA ARENICOLA? Tristr., var. *fusca*, p. 387. no. 176.

ALAUDA PRÆTERMISSA, Blanf., p. 388. no. 177. pl. 6 (opt.).

Having compared Mr. Blanford's type specimen, I take it to be a new species. Its nearest ally will be *A.* (*Melanocorypha*) *infuscata*, Heugl. (Journ. f. Orn. 1864, p. 273), which von Heuglin unites (J. f. Orn. 1868, p. 222) erroneously with *A. erythropyga*, Strickl.; and the identity of the two seems to be not impossible; but this could only be determined by comparing the type specimens.

ALAUDA BRACHYDACTYLA, Temm. *Calandrella brachydactyla*, Blanf. p. 389. no. 178.

"Not rare on the shores of Annesley Bay."

ALAUDA ANDERSONI, Tristr. *Calandrella andersoni*, Blanf. p. 389. no. 179.

"Abundant on stony ground near Senafé."

Closely allied to, but apparently different from, *A. ruficeps*, Rüpp. I saw the type specimen in Mr. Blanford's collection.

CORAPHITES NIGRICEPS, Gould. *Pyrrhulauda albifrons*, Blanf. p. 391. no. 182.

Mr. Blanford thinks this species doubtfully distinct from *C. melanauchen*, in which opinion I cannot agree with him. The distinctive characters of the two species I have already pointed out, *antèa*, page 275.

CORAPHITES LEUCOTIS (Stanl.), p. 392. no. 183; Finsch & Hartl. Vögel Ostafr. p. 466. no. 249.

CHRYSOCOCCYX KLAASI (Steph.), p. 314. no. 44; Finsch & Hartl. Vögel Ostafr. p. 520. no. 284.

"Only a single specimen, obtained in the Lebka valley."

TURTUR SEMITORQUATUS, Rüpp. (*nec* Sws.), p. 416. no. 225; Finsch & Hartl. Vögel Ostafr. p. 541. no. 292.

Localities: Lake Ashangi, Lat, Dildi, Ain, on the Lebka, Anseba valley.

From examination of Rüppell's type we can state the identity of western and north-eastern specimens.

PTEROCLES GUTTURALIS, Smith, p. 421. no. 234.

"Obtained near Agula and Antalo."

There is no difference whatever between these and specimens from South Africa, as the careful comparison of Mr. Blanford's specimens has proved. Von Heuglin thinks the Abyssinian bird to be somewhat different (Journ. f. Orn. 1862, p. 416).

Otis melanogaster, Rüpp., p. 427. no. 241; Finsch & Hartl. Vög. Ostafr. p. 614. no. 322.

"Common on the tableland, especially on the open plains between Adigrat and Antalo."

Chettusia melanoptera, Rüpp. p. 429. no. 248; Finsch & Hartl. Vögel. Ostafr. p. 638. no. 335.

Mr. Blanford never met with this species below about 7000 feet; but Dr. Rüppell procured his type near Djedda, on the Arabian coast.

Lobivanellus melanocephalus, Rüpp., p. 430. no. 250.

"On the higher portion of the Dalanta and Wadela plateau, above 10,000 feet."

Charadrius asiaticus, Pall. *Eudromias asiaticus*, Blanf. p. 429. no. 244. *Ægialitis ruficollis*, Heugl. Syst. Uebers. no. 586; *Ch. damarensis*, Strickl.

At Rairo.

The specimens from Damaraland (Anderson's collection) do not differ from those from Eastern Asia.

Charadrius marginatus, Vieill.; Finsch & Hartl. Vögel Ostafr. p. 654. no. 344. *Ægialitis niveifrons*, Blanf. p. 429. no. 246.

"Abundant at Zoulla in June, and apparently breeding."

Ardea melanocephala, Vig.; Finsch & Hartl. Vögel Ostafr. p. 681. no. 358. *A. atricollis*, Blanf. p. 434. no. 268.

"Near Adabagi, at an altitude of about 8000 feet."

Ardea garzetta, L.; Finsch & Hartl. Vögel Ostafr. p. 687. no. 362. *Herodias garzetta*, var., Blanf. p. 435. no. 269.

"Common on the coast."

Ardea comata, Pall., p. 435. no. 271; Finsch & Hartl. Vögel Ostafr. p. 697. no. 366.

"One specimen was obtained at Antalo."

Ibis comata, Ehrb., p. 436. no. 275.

Localities: Senafé and Antalo.

Numenius arquata, L., p. 432. no. 255; Finsch & Hartl. Vögel Ostafr. p. 736. no. 387.

"Common on the shore in winter."

Xenus cinereus, Güldenst.; *Terekia cinerea*, p. 433. no. 259.

"A single specimen shot at Zoulla in January."

TRINGA CINCLUS, L., p. 433. no. 263; Finsch & Hartl. Vögel Ostafr. p. 758. no. 395.

"On the coast in January."

TRINGA MINUTA, Leisler, p. 433. no. 264; Finsch & Hartl. Vögel Ostafr. p. 764. no. 397.

Shot at Zoulla.

GALLINAGO SCOLOPACINA, Bp.; Finsch & Hartl. Vögel Ostafr. p. 771. no. 400. *Scolopax gallinago*, Blanf. p. 432. no. 257.

"Common on the highlands in the winter months."

RHYNCHÆA CAPENSIS (L.), Finsch & Hartl. Vögel Ostafr. p. 774. no. 401. *Rh. bengalensis*, Blanf. p. 432. no. 258.

"Only met in reeds on the banks of running water at Ailat and Ain, near Massowah. The specimens are quite undistinguishable from Indian ones" (Blanf.).

FULICA CRISTATA, L., p. 434, no. 267.

"Abundant on Lake Ashangi."

BERNICLA CYANOPTERA, Rüpp. p. 439. no. 281.

Localities: Wadela and Dalanta plateau, above 9000 to 10,000 feet; in a high valley at about 8500 feet, between Antalo and Ashangi.

ANAS FLAVIROSTRIS, Smith: Eyton's Monogr. on the Anatidæ (1838), p. 141; Blanf. p. 437. no. 277; *A. undulata*, Dubois, Ornithol. Gallerie, p. 119 (1839), t. 77.

"Common throughout the highlands, and especially on the higher plateaux" (Blanf.).

QUERQUEDULA CRECCA, L., p. 438. no. 279.

"Occasionally met with on the highlands."

FULIGULA CRISTATA, Ray, p. 437. no. 278.

"Lake Ashangi, in pairs, and not very common at the commencement of May."

PODICEPS CRISTATUS, L., p. 440. no. 282.

"Extremely abundant on Lake Ashangi, where it is doubtless a permanent resident."

PODICEPS AURITUS, L., p. 440. no. 283.

"Not very common on Lake Ashangi."

LARUS FUSCUS, L., p. 440. no. 285; Finsch & Hartl. Vögel Ostafr. p. 820. no. 427.

"Common at Zoulla. The wing is a little longer, about an inch, and the bill a trifle

smaller, than in most European specimens; but there appears to be no constant distinction" (Blanf.). We also have not been able to distinguish specimens from Egypt and the Red Sea (*L. fuscescens*, Licht.) from European ones.

PHAËTON RUBRICAUDATUS, Bodd., p. 441. no. 290; Finsch & Hartl. Vögel Ostafr. p. 839. no. 439.

"A single specimen of a young bird was captured alive in Annesley Bay. I did not notice any flying about the bay" (Blanf.).

GRACULUS AFRICANUS, Gmel., p. 441. no. 291; Finsch & Hartl. Vögel Ostafr. p. 847. no. 446.

"I only saw Cormorants on Lake Ashangi, and only this species" (Blanf.).

PELECANUS RUFESCENS, Gmel., p. 442. no. 292; Finsch & Hartl. Vögel Ostafr. p. 849. no. 448.

"I shot a pair on Dissi Island at the end of August. They were in fine plumage, with a rich roseate tinge on the back" (Blanf.).

PELECANUS PHILIPPENSIS, Gmel., p. 442. no. 293.

"Between this bird, which was common on the shore of Zoulla, and of which I shot a single specimen, and the last, there is no difference in measurements, in the form of the frontal feathers, or the disposition of those behind the eye. The crest also appears similar; and although the feathers of the head are shorter and more woolly, this may partly be due to wear. Under these circumstances I should have been inclined to regard the roseate back and breast of *P. rufescens* as seasonal, but for the circumstance that, while the present specimen is unquestionably identical with the common Indian *P. philippensis*, with specimens of which I have compared it, *P. rufescens* does not appear to have been noticed in India. If it were only the nuptial plumage of the present species, it ought to be equally common" (Blanf.).

I agree with Mr. D. G. Elliot, who, in his valuable 'Monograph' of the genus *Pelecanus* (P. Z. S. 1869, p. 583), unites *P. philippensis* from India with the African *P. rufescens*, and am of opinion that these species are inseparable, as pointed out by Professor Schlegel long since. The red tinge on the back is not peculiar to the African bird; for we possess a specimen from Malacca which shows the red very well marked, and Mr. Elliot mentions a specimen from Nepaul in the British Museum which "exhibits very distinctly the reddish colour on the back and rump."

O. F.

Bremen, May 26th, 1870.

DESCRIPTION OF THE PLATES.

PLATE XXIII.

Sketch Map of North-eastern Abyssinia and the Bogos country, showing the routes followed by Mr. Jesse, and his various collecting-stations. The routes are coloured *pink*.

PLATE XXIV.

Caprimulgus inornatus (p. 211), from specimens obtained by Mr. Jesse.

PLATE XXV.

Lanius fallax, sp. nov. (p. 249), from specimens obtained by Mr. Jesse.

PLATE XXVI.

Coraphites melanauchen, Cab. (p. 275), ♂ et ♀, from specimens obtained by Mr. Jesse.

PLATE XXVII.

Larus hemprichii (p. 302), from a skin obtained by Mr. Jesse.

N.B.—The specimens figured in these Plates are included in the complete series of Mr. Jesse's birds now in the collection of Viscount Walden, Pres. Z.S.—Ed.

Trans. Zool. Soc. Vol. 7. Pl. 23.

Map of NORTH EASTERN ABYSSINIA and THE BOGOS COUNTRY, to show Mr. Jesse's Route, and Collecting Stations.

38 39 40

16 15 14

Job
Barka R.
Anseba R.
Beit Mulc M.
Hager M.
Sela
Scherit
Karkabat
H A B A B
Azaede Bakla
Aidab R.
Sera R.
Anseba R.
Arodib R.
Hombol R.
M A R E A
Dollar
Gabon R.
Rairo
As Temariam (Tribe)
Gedena
Gelamet 3027 ft.
Mohabet 2380 ft.
Aualia
Monbar Harat R.
Lebka R.
Ain, 1328 ft.
Maraqaa 3618 ft.
Kokai 3863 ft.
Khor Loheb
Mareit R.
Waliko
Mashalite 3781 ft.
Bejook
Gabena Weldt Gonfalon
Hadendeme R.
M E N S A
Geleh
Shof Gonch R.
Dunquas
Af dehob
Barka R.
Saar R.
KEREN
Hakas R.
B O G O S
Wara
Quanzal
Wakiro R.
Amba R.
Amba
Ras Hurub
Massuah
Chabab I.
Zadamba
Asus
Monkullu
Ailet 913 ft.
Sahati
Arkiko
Ras Gadam
Ras Tikul
Boka R.
Af Shaglet
Bisha
B A R E A
Anseba R.
As Maman
S C H O H O
Haudhah
Ras Delama
Dissee I.
Asowli R.
Btefeno
Arnetta
Barka R.
M. Gadam
Annesley Bay
Hurtaw Pk
Ras Gubobeli
Gau Afla
H A M A S E N
Tsazega
Asmara
M. Assowli
R. Hadas
Mulkullo
Buri Peninsula
Gondalali B.
Adjuce I.
Mogoreb R.
Zoulla
Koomayli 5200
M. Abdur
Howakel
Abalu
Soorooa 2397 ft.
Futeh Spr
Arafle
Arena
Howakel Bay
Omer I.
Baha
Ras Unduddah
Bakha
Farum
Saasa
Gura
Dixa
Halai
Tsaro
Schohro
Undel Wells 3714 ft.
Koomayli
Makarra R.
Galali R.
Tsaadu R.
M. Mangabo
Addi Baro
Little Mareb R.
Mai Daro
Oita R.
Gash or Mareb R.
Thukl Mt.
S A R A E
Godofelassie
Maini R.
Tuhuili
Aroma
Hames R.
Kisat
Bareaguddy 6158 ft.
Senafe, 7400 ft.
Sevra
Ad Hasu
Dendraro R.
Durrowlee R.
Amphilla B.
Amphilla
Ras Marah
Shimasana
Serena R.
Baltu R.
Gundet
Mai Sabri
Mai Muna R.
Gpongoona 6703 ft.
Endayly R.
Ramate R.
Sargen
Zeban Sima
Laaguddy R.
Fucudo 7531 ft.
Khareaba
Gursut R.
Ragule R.
Tsaba R.
Ala Takura M.
A D I A N O
Mai Baraait
Mehukan R.
Tenguva R.
T I G R E
Addigerat 7760 ft.
Mai Anr R.
Sobni Pk
Khor Meheteb
As Daro
Mai Surru
Adowa Hills
Alequa
Kebrid Aleh
S H I R E
Adowa
Mai Mashrob
Axum
Mai Wahes
Birkattan M.
Takazze R.
Samama
Midr Hinat
Hausen R.
A B Y S S I N I A
Senafe Hills
L. Alelbad
Khor Rojar
Kabtiya M.
Sada Emba
Perera R.
Shcha R.
Gurumura R.
Perase Mai
Magab
Adebaga
Atsmodara Hills
Charasige
Masobo
Hadgu
Sage
R. Werl
Dimmane
Mersa Moobaruck
Indesille
Howalee Huttoob
Shoorah
Harmed
Kaddo
Wooster
Suratoo
Hukally
Tunnum
Gubbehoo
Harat I.
Nahelej
Tookiash
Nora Id
Muhun
Dulfeedo
Dulbahout
Dohul
Dulhulum
Derome
Houateb
Kebeer
Dilladesh
Goobanee
Gurreet
Segarla
D A H L A C A R C H I P E L A G O
Dhalac Id
Dhalac
Tor
Salma
Shummar
Moosmaree
Dulgrose
Orcan
Bothessoo
Ras Ununddah
Ras Marah
Amphilla B.
Amphilla
Howakel Bay
Omer I.
Arena
Baha
Ras Gubobeli
Hurtaw Pk
Buri Peninsula
Gondalali B.
Adjuce I.
Howakel
M. Abdur
Annesley Bay
Haudhah
Ras Delama
Dissee I.
Moosmaree
Dulgrose
Orcan
Bothessoo
Ras Gubobeli
Hurtaw Pk
Ras Marah
Amphilla B.
Amphilla
L. Alelbad
Kebrid Aleh
Senafe Hills
Atsmodara Hills
Hadgu
Sage
Adebaga
Sada Emba
Mai Wahes
Midr Hinat
Hausen R.
Perase Mai
Magab
Masobo
Adowa
Axum
Samama
Adowa Hills
Addigerat 7760 ft.
Alequa
Sobni Pk
Mai Anr R.
Khareaba
Fucudo 7531 ft.
Sargen
Zeban Sima
Laaguddy R.
Gursut R.
Endayly R.
Ramate R.
Ragule R.
Tsaba R.
Gpongoona 6703 ft.
Mai Muna R.
Baltu R.
Tenguva R.
Gundet
Mai Sabri
Mehukan R.
Mai Baraait
Mai Surru
Ala Takura M.
Khor Meheteb
As Daro
Birkattan M.
Takazze R.
Khor Rojar
Kabtiya M.
Charasige
Perera R.
Shcha R.
Gurumura R.
R. Werl
Serena R.
Shimasana
Ad Hasu
Dendraro R.
Durrowlee R.
Castle Kullo R.
M. Mangabo
Tsaadu R.
Galali R.
Makarra R.
Koomayli
Undel Wells 3714 ft.
Tsaro
Halai
Dixa
Farum
Saasa
Gura
Bakha
Arafle
Futeh Spr
Soorooa 2397 ft.
Abalu
Zoulla
Koomayli 5200
Mulkullo
R. Hadas
Annesley Bay
Howakel
Howakel Bay
Omer I.
Arena
Baha
Ras Ununddah
Ras Marah
Amphilla B.
Amphilla
Buri Peninsula
Gondalali B.
Adjuce I.
M. Abdur
Haudhah
Ras Delama
Dissee I.
Moosmaree
Dulgrose
Orcan
Bothessoo
Tor
Salma
Shummar
Dhalac Id
Dhalac
Goobanee
Gurreet
Segarla
Derome
Houateb
Kebeer
Dilladesh
Dulhulum
Dulfeedo
Nahelej
Muhun
Nora Id
Tookiash
Harat I.
Harmed
Howalee Huttoob
Shoorah
Mersa Moobaruck
Indesille
Dimmane
Kaddo
Wooster
Suratoo
Hukally
Tunnum
Gubbehoo
Coobadh
Dulbahout
Dohul
Ras Hurub
Massuah
Monkullu
Ailet 913 ft.
Sahati
Arkiko
Ras Gadam
Ras Tikul
M. Gadam
Shof Gonch R.
Wakiro R.
Amba R.
Amba
Quanzal
Asus
Wara
Zadamba
Anseba R.
Asowli R.
Dissee I.
Haudhah
Ras Delama

CAPRIMULGUS INORNATUS

J. Stone Lith.

LANIUS FALLAX

J Smit lith

M & N Hanhart imp

CORAPHITES MELANAUCHEN.

Trans. Zool. Soc. Vol. V. Pl. 21

LARUS HEMPRICHII